

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE(S)
1 of 2

2. AMENDMENT/MODIFICATION NO. 117	3. EFFECTIVE DATE See Blk 16c	4. REQUISITION/PURCHASE REQ. NO. See Blk 14 As Applicable	5. PROJECT NO. (If applicable)
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6. ISSUED BY

NASA
Goddard Space Flight Center
Wallops Flight Facility
Wallops Island, VA 23337

7. ADMINISTERED BY (If other than Item 6)

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

The Cube Corporation
45665 Willow Pond Plaza
Sterling VA 20164

9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

10A. MODIFICATION OF CONTRACT/ORDER
NO: NAS5-01080

10B. DATED (SEE ITEM 13): 07-26-01

CODE:

FACILITY CODE:

X

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers [] is extended, [] is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or a amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) PC/BNC: BX/GFG

1. ESTIMATED COST: \$130,172,332.00 TOTAL CONTRACT FUNDING: \$82,514,896.58

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

()	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 42.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF FAR 52.243-2 Changes - Cost Reimbursable
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [] is not, [X] is required to sign this document and return 3 copies to be issued office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject mater where feasible.)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

1. The purpose of this modification is:

a. to move the Navy Family Housing requirements from Baseline Statements of Work 2 Facilities Engineering, 3 Operations and Maintenance, and 6 Custodial to IDIQ task orders for the same SOWs.

(Continued on page 2)

5A. NAME AND TITLED OF SIGNER (Type or print) James M. West, Acting Program Manager	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Pamela J. Taylor
5B. CONTRACTOR/OFFEROR <i>[Signature]</i> (Signature of person authorized to sign)	16B. UNITED STATES OF AMERICA BY <i>[Signature]</i> (Signature of Contracting Officer)
15C. DATE SIGNED	16C. DATE SIGNED 1 Feb 2005

1-152-8070

STANDARD FORM 30 (REV. 10-83)

Block 14 DESCRIPTION (Continued)

1.continued

b. to revise Contract Clauses B.6, Estimated Cost and Incentive/Award Fee and B.7, Award Term. These changes decrease the Baseline target cost and fee for Contract Years 4-10.

2. Replacement pages are attached.

3. No other changes to the subject contract are made by issuance of this modification.

Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period.

(End of Clause)

B.6 ESTIMATED COST AND INCENTIVE/AWARD FEE

The total estimated cost for the WICC contract is defined as the sum of year 1-4 Baseline Target Cost and the IDIQ Minimum as adjusted by the aggregate estimated costs for all tasks issued during that period.

TO BE COMPLETED BY OFFEROR

BASELINE GOVERNMENT REQUIREMENTS		YEAR 1	YEAR 2	YEAR 3	YEAR 4
BASELINE TARGET COST					
TARGET Incentive FEE					
MINIMUM Incentive FEE					
MAXIMUM Incentive FEE					
UNDERRUN SHARE RATIO					
OVERRUN SHARE RATIO					
AWARD FEE					
IDIQ MINIMUM		1,000,000.00			
IDIQ MAXIMUM		60,000,000.00			

(b)(4)

Baseline requirements for the WICC are defined as the non-IDIQ portion of the contract. Baseline requirements are specifically identified in J-2 Appendix to the contract (J-2).

(End of Clause)

B.7 Award Term

TO BE COMPLETED BY OFFEROR

		AT 1	AT 2	AT 3	AT 4
	BASLINE TARGET COST	(b)(4)			
	TARGET Incentive FEE				
	MINIMUM Incentive FEE				
	MAXIMUM Incentive FEE				
	UNDERRUN SHARE RATIO				
	OVERRUN SHARE RATIO				
	AWARD FEE				
	IDIQ MINIMUM				
	IDIQ MAXIMUM				
		AT 5	AT 6		
	BASLINE TARGET COST	(b)(4)			
	TARGET Incentive FEE				
	MINIMUM Incentive FEE				
	MAXIMUM Incentive FEE				
	UNDERRUN SHARE RATIO				
	OVERRUN SHARE RATIO				
	AWARD FEE				
	IDIQ MINIMUM				
	IDIQ MAXIMUM				

The Award Term amounts specified herein, if earned in accordance with the terms and conditions of this contract, shall augment the base or previous contract period amount in Clauses B.6 and B.8, respectively.

(End of Clause)

2.0 FACILITIES PLANNING, ENGINEERING & CONSTRUCTION MANAGEMENT SERVICES

2.1 General Information

The Contractor shall provide the facilities planning, engineering and construction management services required by the Government as identified in this statement of work. These services will be required to support NASA, Navy, and other tenant institutional and project specific facilities activities; on-site and worldwide.

All facilities Planning, Engineering & Construction Management Services requirements for Family Housing Navy shall be requested by IDIQ task orders.

2.1.1 Restrictions, Limitations, and Special Conditions

The Contractor shall take into account entry restrictions to certain facilities to accomplish the work called for in this SOW. All work performed by the Contractor shall remain the property of the U.S. Government and shall not be disclosed, distributed, or modified without the consent of the Contracting Officer (CO).

2.1.2 Architectural/Engineering Services Overview

The Contractor shall provide Architectural/Engineering (A-E) services to perform engineering studies, conceptual designs, preliminary cost estimates, final designs, construction scheduling, engineering calculations and analyses, cost estimates, construction specifications, and to participate in design reviews and construction follow-on services, including submittal reviews, during and after construction. These services shall include civil, structural, architectural, mechanical, electrical, fire protection, Utility Control Systems (UCS), environmental engineering, specification writing, and site surveys. The design of special equipment such as ground support and rocket/balloon launch facilities and equipment shall also be required under this contract.

Other requirements shall include, but not be limited to, drafting, detailing, AutoCAD Computer-Aided Drafting (CAD) operations, in-field inspection, Central Engineering File (CEF) management, project control, Specsintact specification writing system computer software operations, standards management, construction surveillance, and other NASA and Navy facilities planning, engineering and construction work flow management in support of WFF activities.

The general scope of services shall include the turn-key preparation of conceptual designs, studies, development of projects scope, basis of need and cost estimate documentation, and architectural/engineering services for the design of new facilities and for the alteration, modification, and rehabilitation of existing facilities. In addition, construction field engineering, surveillance, and inspection services shall be included in this SOW, as well as sub-contracting for construction services.

All work shall be conducted by competent architects, engineers, technicians and surveyors. The services shall be provided in accordance with the latest edition of the Facilities Management Branch (FMB) Project Management Manual and the latest edition of the NASA Facilities Project Implementation Handbook (NHB 8820.2). All designs and studies shall be in compliance with Federal, and Goddard Space Flight Center/Wallops Flight Facilities requirements and regulations. All designs shall be coordinated with the site Safety, Environmental, Fire Safety and other cognizant offices to ensure each design meets all applicable codes, regulations and Government requirements. All design work shall comply with applicable regulations and meet 10 Code of Federal Regulations (CFR) Parts 435 and 436 and subsequent mandated legislation.

2.1.2.1 Professional and Non-Professional Engineering Services

Professional engineering services shall include, but not be limited to, architectural, mechanical, civil/structural, electrical, and construction management disciplines.

Non-professional engineering services shall consist of, but not be limited to, drafting, detailing, AutoCAD Computer-Aided Drafting (CAD) operators, in-field inspection, Central Engineering File (CEF) management, project control, Specsintact management, Standards management and construction surveillance in support of WFF activities.

Both professional and non—professional engineering services shall be required to support NASA, and tenant institutional and project specific facilities activities; on-site and worldwide.

2.1.2.2 Design Overview

All designs and studies shall be in compliance with Federal and Goddard Space Flight Center/Wallops Flight Facilities standards, requirements and regulations. The Contractor shall coordinate with the site Safety, Environmental, Fire Safety and other cognizant offices to ensure each design meets all applicable codes, regulations and Government requirements. The Contractor shall retain sole responsibility for ensuring all design elements accomplished by the Contractor comply with applicable regulations and meet 10 Code of Federal Regulations (CFR) Parts 435 and 436 and subsequent mandated legislation.

2.1.3 Design Reviews

The Government requires one final and a variable number of interim formal reviews of the design process and design deliverables. The specific personnel, requirements, scope and deliverables of the design effort and the design review processes shall be addressed on a per project basis with the Contracting Officer during the development of the Project Management Plan.

2.1.4 Computer-Aided Drafting

All CADD drafting called for by this SOW shall be performed using AutoCAD Version 14.0, or later versions.

2.1.5 Project Management Plans Construction Budget Estimates

The Contractor shall include construction budget, design budget and design schedule data included in a Project Management Plan (PMP) before a design begins. If requirements change during the design, the PMP shall be reviewed by the Contractor to determine if projected budget and schedule estimates are still correct. Informal proposals for adjustments to these and all PMP parameters are the responsibility of the Contractor as is notification of same to the CO's technical representative. All changes to these parameters agreed upon between the Contractor and CO will be formalized within 3 days in a revised PMP.

2.1.6 Policies, procedures, & guidelines

The Contractor shall develop, maintain, and implement policies, plans, procedures, & guidelines in the field of facilities planning, engineering, construction, and other NASA, Navy, and tenant work. Whenever existing government procedures can be made more efficient and/or effective, the Contractor shall make formal recommendations to the Contracting Officer (CO). The CO shall approve all changes to existing procedures.

2.2 Information Management Systems

Introduction: The Contractor shall operate, and maintain the Facilities Management Branch (FMB) Information Management System (IMS) as defined in this and other sections for this RFP. The systems shall include, but not be limited to a Geographic Information System (GIS), computer-aided design and drafting system (CADD), NASA Specs-in-tact system, Real Property and Space Utilization System, Facilities Project Management System (FPMS), Facilities Management Branch (FMB) web site, and work management systems such as Automanager WorkFlow, MS-Project and MS Excel. Services shall include limited hardware, software, network, documentation, and programming support. Software support includes administration, operation and maintenance, and excludes development and modification unless otherwise noted in this SOW.

All data and databases used and/or developed by the Contractor shall remain the property of the Government. Data and images generated are for government use only unless authorized and shall not be distributed without permission of the cognizant Government official.

2.2.1 Geographic Information System (GIS) Support (Category 2)

Introduction: The GIS is an electronic system that manages facility-wide graphics and the associated attribute information.

Requirement: The Contractor shall:

- a. Develop, configure, operate, program, document, integrate, provide user support and shall collect and input the geographic and facility asset data as well as maintain the attribute databases.
- b. Develop user specific custom mapping products to fulfill requirements of requesters. The Contractor shall also develop custom interfaces and/or integration of open database connectivity (ODBC) compliant databases (specifically Oracle, MS Access, Arc/Info & dBase), and shall assist users by developing reports (Seagate Crystal Reports), programming unique user applications, and providing custom analysis utilizing Arc/Info GIS, Maximo, Condition Assessment Survey (CAS), and various other existing FMB information systems. Databases to be maintained shall include but not be limited to, facilities, land use and characteristics, underground utilities and cabling (water, sewer, electrical, telecommunications, data cables, etc.), surveying data, topographical, environmental, hazardous material location, etc. Changes shall be made within 30 days of site modification or construction completion.
- c. Make available to authorized users, information contained in the GIS databases 98% of the time via network resources.

Standard: Shall comply with Facilities Engineering Branch (FMB) Project Management Manual, and the Configuration Management Manual. Compliant with Tri-Services Spatial Data Standards (TSSDS) and other appropriate data standards.

2.2.2 Internet Web Page (Category 2)

Requirement: The Contractor shall:

- a. Maintain existing and develop new FMB web pages. These web pages shall be updated on a monthly basis reflecting changes since the last update. This includes documentation, web page security access levels, image capture, creation of editable text Adobe PDF files, and the development of web enabled databases for the purpose of disseminating FMB information to internal and external customers.

Support users by formatting databases to be linked with the system, assisting users in interfacing the central system, programming unique user applications, providing custom web page design and updating of existing web pages to reflect current status. (Examples of existing web pages would include but not be limited to Organization Charts, Project lists and status, and listed work processes.)

Standard: Accurately maintains the web pages and other associated systems on time and shall utilize the latest version of each system. Information contained in these systems shall be available to users at all times.

2.2.3 Documentation Support, Construction Drawings and As-Builts (Category 1 & 2) (IDIQ)

Requirement: The Contractor shall:

- a. Utilize existing Automanager WorkFlow electronic document management system for management and control of all documents under Configuration Control.
- b. Prepare facilities construction drawings for facilities modifications and these drawings shall accurately reflect existing conditions and the scope of work to be accomplished during construction.
- c. Within 30 days of completion of any facility modification or new construction work, the Contractor shall incorporate redlined changes (provided by others or developed in-house) from NASA, Navy, and other resident agencies construction projects. This service shall be performed when a facility modification or new construction results in a change to Government property, facilities, electrical and climate control systems, plumbing, utilities, roads and grounds, and other changes to the Configuration Drawings (CD's).
- d. Incorporate redlined details to the level of detail presently found on the As-Builts and Configuration Drawings. These drawings shall be in electronic format, maintained in the Central Engineering Files. (See 2.2.5, Central Engineering Files Services.)
- e. The Government shall be given full electronic accessibility to the database maintaining these records and all files shall remain the property of the Government.
- f. Maintain electronic or hard copy records, in a format approved by the CO, to show a project's receipt from the project manager upon construction completion and the percent completion of incorporating redlined details into As-Built Drawings. The records shall cover all As-Built work and records shall be up-to-date within 24 hours of the receipt.
- g. Review and use all available sources, including redlines, shop drawings, submittals and field investigations to determine the information to be transferred to the affected Configuration Drawings.
- h. Perform all drafting to develop and/or update As-Built drawings affected by all projects that affect facilities at WFF, whether designed in-house or by others.

Standard: All work shall be completed within the stated timeframes and in a format approved by the CO. No deviation from Facilities Engineering Project Management Manual, the Configuration Management Manual, the Facilities Drafting Manual and the Tri-Service A/E/C CADD Standards (currently release 1.7)

2.2.4 Documentation Support, Updating Configuration Drawings from As-Builts (Category 2) (IDIQ)

Introduction: At the start of this Contract the Government will have existing As-Built Drawings in backlog that have not been incorporated into Configuration Drawings.

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Requirement: The Contractor shall:

- a. Develop a plan and cost estimate for CO approval to determine how much of the existing as-built backlog should be incorporated into Configuration Drawings. The plan shall provide a list of the specific drawing numbers included in this proposed work, a proposed order of priority, and a schedule of completion milestones. Upon approval of the CO, the Contractor shall incorporate those existing As-Built Drawings into Configuration Drawings.
- b. As projects are constructed during the performance period of this contract, the Contractor will be given Redlined Drawings by the CO, and the Contractor shall incorporate these Redlined Drawings into As-Builts and also into the appropriate Configuration Drawings. Upon the completion of updating Configuration Drawings, the Contractor shall request review and approval by the CO.
- c. The site's Configuration Drawings and all other facilities drawings and documents shall be maintained and used by the Contractor and copies produced and provided to others at the request of the CO as references for planning, design, construction and operations efforts. Once the Configuration Drawings have been updated, the final design drawings (As-Builts), and the updated configuration Drawings shall be maintained in Central Engineering Files (CEF).
- d. A separate and different contractor is developing a GSFC Master plan that includes WFF. As some time during this contract period, this Master Plan will be provided to the Contractor. Once the Master Plan is developed under a separate contract, the WICC Contractor shall be given a baseline Facilities Master Plan in electronic and hard copy, to maintain and update. The Contractor shall, within 60 days of completion of approved modifications to facilities, revise, create, and update Master Plan drawings and shall make these available to the government.

Standard: Work has been completed in a timely manner per the requirements. Drawings are readily available to others and the masters are properly archived.

2.2.5 Documentation Support, Central Engineering Files Services (Category 2)

Requirement: The Contractor shall:

- a. Maintain a central depository of all hard copies and electronic copies of Configuration Drawings, construction drawings, as-built drawings, redlined drawings, specifications, submittals, shop drawings and other Configuration Controlled documents. All material shall be cataloged and indexed and electronic versions shall be accessible through Automanager WorkFlow system or Web enabled. This central depository shall be co-located with the Facilities Engineering CADD areas. This area shall be designated as Central Engineering Files (CEF).
- b. Manage documentation storage, filing services, and retrieval and shall maintain a database of all Configuration Drawings as defined by the FMB Configuration Management Manual.
- c. During the length of this contract, the Contractor shall develop for CO approval, any proposed changes to procedures to insure the integrity, access, and security of Configuration Drawings, redlined drawings, construction drawings, and as-built drawings regarding the removal of property from Central Engineering Files area.

Standard: All requests for Configuration Drawings shall be filled within 24 hours (Monday through Friday). Approved changes to procedures are approved by the CO and implemented in a timely manner. All drawings are maintained in Central Engineering Files according to requirements

2.2.6 Documentation Support, Miscellaneous Graphics Support (Category 2)

Requirement: The Contractor shall:

- a. Develop miscellaneous CADD drawings and other graphic designs, and shall revise or create projects, signs, graphs, charts, presentations or other graphical output, utilizing AutoCAD, Excel, Power Point and/or other appropriate software packages.
- b. The exact schedule and completion time for each task shall be given when the CO assigns the task.

Standard: Meets quality, timeliness and documentation requirements.

2.2.7 Documentation Support, Excavation Permit Process Support

Introduction: The Contractor shall support the excavation permit process for cable installation through the route planning and documentation, and underground utility location. This includes documentation, validation, field locating of underground utilities, and recommendations for issuance of permits.

Requirement: The Contractor shall:

- a. Review construction drawings to ensure installation, re-routing, or removal of cables, and conduits of the site's underground/buried utility systems. The Contractor shall ensure that all potential hazards and position conflicts resulting from such installation are identified visually in the field with paint or tape and conveyed verbally to the CO or construction project manager and to the team physically handling the installation.
- Utilize GPS to capture underground utilities during construction while trenches are open and utilities are exposed. The Contractor shall copy GPS data to electronic master utility drawings.
- c. All requests for permits and their disposition, whether approved or disapproved, shall be electronically documented by the Contractor.
- d. Within 3 working days of request, the Contractor shall review the submitted construction drawings and respond to the Government or construction project manager and to the team physically handling the installation, with a new permit or a written notice explaining the reason for rejection.

Standard: All requests are completed accurately and within the time specified.

2.2.8 Documentation Support, Space Utilization Plans (Category 2)

Requirement: The Contractor shall:

- a. Maintain and update the existing Space Utilization Plan Drawings and maintain these drawings in CADD format. The updated Space Utilization Plan drawings shall reflect current room number, and location of walls and partitions within Government and Government-leased buildings. Space Utilization plans shall meet NASA GSFC/WFF, NASA HQ, OMB and other requirements.
- b. Each Space Utilization Plan shall represent the current architectural configuration of the area including room numbers and layouts, room type, gross square footage and net usable square footage total. The format of each update shall be similar to the configuration of the existing Space Utilization Plan and all room numbers and other data shall be legible, when photocopied.

Standard: The space utilization plans shall be updated and maintained accurately and in a timely manner.

2.2.8.1 Documentation Support, Space Utilization Plans Field Check Updates

Requirement: The Contractor shall:

- a. Perform field inspections of the onsite facilities to verify all Space Utilization Plan drawings are accurate. The drawings shall be updated to reflect current configurations resulting from wall modifications and room number changes found by these field checks. Revised Space Utilization Plans shall be provided on 8-1/2" x 11" and 17" x 22" plots. All onsite buildings shall be field checked at least once per year. All updates shall be completed within 14 days of the field inspections. Full size drawings shall be plotted to scale: 1/8" = 1'-0" for 28" x 40". Reductions to 8 1/2 " x 11" shall be labeled "not to scale".
- b. Provide to the CO for approval, within 180 days following the contract start date and by the annual anniversary thereafter, a schedule for performing the field inspection. All inspections shall be performed in accordance with the approved schedule. The field check schedule shall be updated by the Contractor when buildings are added or deleted from the WFF. New buildings and modifications shall be field checked within 60 days of Government acquisition. Changes to the schedule, for reasons other than including or deleting buildings, are allowed only with the prior approval of the CO. Whenever the schedule is changed, the Contractor shall provide the CO a copy of the new schedule.
- c. Maintain one original copy of each size plot for their use, provide one original copy of each size plot to the CO and maintain the original in CEF. The Government shall be notified of any incorrect or missing room numbers.

Standard: Field inspection schedule is submitted to the CO on time. Contractor performs inspection on time relative to the approved schedule. Work Quality and documentation meets or exceeds the stated requirements.

2.2.8.2 Documentation Support, Space Utilization Plans Redline Updates (Category 2) (IDIQ)

Requirement: The Contractor shall update Space Utilization Plans per redlined drawings provided by the CO from bid construction work. These updates shall be incorporated within 30 days of receipt of redline updates.

Standard: Meets quality, timeliness and documentation requirements.

2.2.8.3 Documentation Support, Space Utilization Plans Construction Updates (Category 2) (IDIQ)

Requirement: The Contractor shall create new Space Utilization Plans where none exist, or update existing Space Utilization Plans affected by construction projects performed at WFF. When a construction project involves a change in floor plans, wall modifications or room number changes, the Contractor shall provide within 30 days of the end of that construction activity, an updated Space Utilization Plan representing the new configuration. (See 2.2.9.2 Redline Updates).

Standard: Meets quality, timeliness and documentation requirements.

2.2.8.4 Documentation Support, Review and Comments of Modified Space Utilization Plans

Requirement: The Contractor shall distribute updated Space Utilization Plan drawings to an established distribution list, for review and comments. Approved comments shall be incorporated into the Space Utilization Plan Manual

Standard: Modified Space Utilization Plans are distributed as per requirements and meets quality, timeliness and documentation requirements.

2.2.8.5 Documentation Support, Distribution of Space Utilization Plans Manual

Requirement: The Contractor shall:

- a. Maintain and update the distribution list in a CO approved electronic format. The Contractor shall assemble updated Space Utilization Plan drawings into the existing Space Utilization Plans Document, named Space Utilization Plans Manual, produce multiple copies, and distribute it to an established distribution list. The CO will review and approve the assembled document before reproduction and distribution. A change to the distribution list requires prior approval by the CO. In addition to the multiple copies distributed to the established distribution list, the Contractor shall maintain one original copy and 5 stock copies in CEF.
- b. The distribution list shall be kept current within 24 hours of receipt of changes. All Space Utilization Plan updates completed prior to November 30 of each year shall be included in the document. The document shall be initially distributed by January 15 of each year. Customer requests shall be met within 72 hours.

Standard: Space Utilization Plan Manuals are accurately distributed in a timely manner as per requirements.

2.2.9 Intentionally left blank

2.2.10 Facilities Project Tracking

2.2.10.1 Facilities Project Management System (Category 1)

Introduction: The Facilities Project Management System (FPMS) is a NASA owned software application for the PC and is used for tracking design and construction projects and creating other official NASA documents (NASA forms 1509 and 1510 and H.Q. Quarterly CoF Reports).

Requirement: The Contractor shall:

- a. Update and input data into the FPMS, and shall make this information available to the government on an as needed basis. Updates shall be made on a weekly basis.
- b. Prepare reports and other documents and make available on a monthly basis.

Standard: Updates are accurately performed and within the time established in the requirements. Reports are distributed in a timely manner.

2.2.10.2 Other Engineering and Construction Project Tracking (Category 3)

Requirement: The Contractor shall:

- a. Electronically track the status of all engineering and construction programs, including, but not limited to designs and studies status, costs of designs and studies the Contractor has incurred, costs of all field inspections during construction activities and other projects worked on by the Contractor.
- b. Reports shall be updated weekly and printed reports shall be submitted to the CO monthly and shall include start dates, due dates, completion dates, reporting requirements, and other pertinent information as mutually agreed to by the CO.

Standard: Meets quality, timeliness and documentation requirements.

2.3 Project Management (IDIQ)

Introduction: Government employees are inherently responsible for managing all projects and initiatives at WFF. However, the Contractor shall provide Project Management in directed areas of facilities planning, engineering, and construction supervision. This support shall include liaison activities required between the various users of GSFC/WFF facilities and, where the use of facilities are required outside the WFF facility, between GSFC/WFF and the remote ranges or test facilities. The services shall be required on a task order basis for a broad range of facilities services from major construction projects to providing advice and engineering assistance for planning and/or studies.

Requirement: The Contractor shall:

a. Provide the following project management services:

- (1) project planning
- (2) scope development
- (3) requirement development
- (4) project schedules
- (5) project leadership in the development, design and monitoring of major facilities projects from conception through final acceptance
- (6) review and recommendations for approval/disapproval of architectural and engineering (A/E) and consultant submittals, construction shop drawings, and project changes.

Standard: Meets quality, timeliness and documentation requirements.

2.3.1 Preparation of Project Management Plans (PMP's) (IDIQ)

Requirement: The Contractor shall:

- a. Prepare Project Management Plans for each facilities engineering design project greater than \$25,000 in construction costs in accordance with the latest version of the Facilities Engineering Branch Project Management Manual. The PMP shall document, as a minimum, the project scope, project requirements, the design team, project schedule and budget estimate for the project including design costs and construction cost estimates.
- b. All projects with construction budget estimates of \$25,000 or more shall have a PMP prepared prior to the start of any design activities. PMP's shall also be developed in the planning stages of a project before it is funded for design or as requested by the CO. PMP's shall be delivered to the Engineering and Planning Group Leader within 7 days of receipt of the design or planning request. PMP's shall follow the format described in the Facilities Engineering Project Management Manual and shall be in electronic format (word processing) and a hard copy delivered to Group Leader.

Standard: PMP's are delivered on time, meet quality requirements, and are electronically accessible.

2.4 Planning and Budgetary Cost Estimating

Introduction: The Contractor shall utilize NASA, GSFC/WFF, and/or Navy specific Project Planning and Cost Estimating procedures and techniques to assist in the development of facilities engineering and construction programs and budgets. These programs include, but are not limited to Center Funded (Rehab & Mod), Multi-year (Rehab & Mod), Construction of Facilities (CoF), MILCOM, small maintenance construction project programs and other NASA and Navy construction programs. These programs represent various and different fund-sources and have various documented rules governing project inclusion.

Requirement: The Contractor shall:

- a. Follow all existing policies, plans, procedures and guidelines in the field of facilities planning, engineering, and cost estimating. Wherever existing procedures can be made more efficient and/or effective, the Contractor shall make formal recommendations to the CO. Cost estimating for budgetary purposes shall include design costs, rough order of magnitude construction costs, construction Contractor overhead and profit, and any other appropriate mark-ups or burdens.
- b. Provide Architectural/Engineering Planning services to the WFF community, and the Wallops and Greenbelt FCC. These services shall include, but not be limited to, customer interface for Re-Housing, Engineering Master Planning, Rehab & Mod, Construction of Facilities and small maintenance construction project planning.
- c. Provide Architectural/Engineering Planning services directly related to the Navy Shore Facilities Planning System and Public Works management including customer interface for design, planning, management and coordination.

Standard: Planning and budgetary cost estimates shall accurately reflect average costs of firms doing business at WFF including escalation for inflation of out-year projects. Shall comply with latest edition of Facilities Project Implementation Handbook (NHB 8820.2), and Facilities Engineering Project Management Manual. Cost estimates are delivered within the time frame established. The Contractor shall maintain existing databases of project information and shall make available all information to the CO.

2.5 Engineering Studies (IDIQ)

Introduction: The Contractor shall perform feasibility studies, special engineering investigations and analysis, existing condition studies, analysis of future requirements, cost and design feasibility studies, conceptual project design studies, and energy conservation studies.

Requirement: The Contractor shall:

- a. Perform field investigation, engineering analysis, research of master facility drawings, and all engineering necessary to produce reports, studies and planning documents relative to:
 - (1) Investigate, analyze, and evaluate existing facility operations anomalies to make remedial (non-repair) recommendations.
 - (2) Modification of existing facility structures and systems.
 - (3) Design of new facilities and systems.
 - (4) Development of RCM and PT&I procedures for new and existing systems.
- b. All engineering studies shall address project feasibility, constructability, cost effectiveness, schedule, and energy efficiency as applicable. Study report shall describe all data used for the final conclusion and shall provide analysis of problem or issue, and sound engineering recommendations including cost estimates and schedules.

Standard: Shall comply with latest edition of Facilities Project Implementation Handbook (NHB 8820.2), and Facilities Engineering Project Management Manual. Meets quality, timeliness and documentation requirements.

2.6 Design Engineering Services (IDIQ)

Design engineering services shall include planning, engineering, drafting, specification production and cost estimating. These services shall be issued on a task order basis for a broad range of facilities engineering projects ranging from \$100 to \$5.0 million in construction cost. The Contractor's Engineering Supervisor or Lead Engineer shall review all design work prior to submittal of design to the requestor or customer.

2.6.1 Architectural/Engineering Services (IDIQ)

Requirement: The Contractor shall provide Architectural/Engineering services as described in the following areas: (Also see Section 2.1.2.3 (Design Engineers/Architects), and 2.1.2.4 (Drafting Personnel))

- a. Architectural/Engineering designs for CoF, Center Funded, MILCON and small maintenance projects related to institutional and R&D facilities projects.
- b. Architectural/Engineering designs for Re-housing, Master Planning, rehabilitation design for antiquated facilities, and designs for new modern institutional and R&D facilities.
- c. Architectural/Engineering project management services for multiple simultaneous design projects involving institutional and R&D facilities accomplished by this contractor and other A&E contractors.
- d. Electrical Engineering designs for institutional and R&D facilities.
- e. Mechanical Engineering designs for institutional and R&D facilities.
- f. Civil/Structural Engineering designs for institutional and R&D facilities.
- g. Plant Engineering designs in support of the Operations and Maintenance Programs at WFF.
- h. AutoCAD drafting for institutional and R&D facilities designs.
- i. GIS Cartography services support for institutional and R&D facilities.
- j. Specsintact specifications production for institutional and R&D facilities designs.
- k. Other Architectural/Engineering disciplines on an as needed basis.
- l. All requests for design services shall be accomplished according to the priorities established by the CO and shall fulfill the design requirements of Government and tenant programs. Designs shall address and meet the specific requirements detailed in the approved Project Management Plan (PMP).
- m. All designs created shall require specifications, construction drawings, cost estimates, and project schedules. Construction drawings shall be prepared as specified in section 2.2.3 (Documentation Support) of this SOW. All engineering designs shall reference the specifications developed for the construction project. Latest and most applicable specifications shall be edited and tailored to meet specific project requirements. The final designs shall include all the required materials and shall be delivered per PMP schedule.
- n. As projects are assigned to the Contractor for engineering and planning design services, the Contractor shall develop an integrated plan that outlines a schedule for the completion of all projects.

Standard: Shall comply with Facilities Engineering Project Management Manual, the Configuration Management Manual, NASA's Facility Project Implementation Handbook (NHB 8820.2), and other NASA or Navy standards and procedures manuals. The specifications are produced using the NASA SPECSINTACT Submasters, and the NASA SPECSINTACT Mastertext, whichever is the latest and most applicable. All design drawings shall be developed using AutoCAD software. Architectural/Engineering services shall accurately fulfill the requirements (including timeliness requirements) of the customers.

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2.6.1.1 Sketch Engineering Projects Designs (IDIQ)

Introduction: Development of Sketch Engineering designs require documents that describe projects that will be constructed "in-house" via this Contractor's maintenance and/or construction shop forces, by work orders, in lieu of development of formal bid documents (plans and specifications) that would be competitively bid and constructed by "outside" construction Contractors. These documents require less detailed specification production, but shall include clear and concise instructions for the Contractor as to the work to be performed, including drawings and sketches, installation instructions where appropriate, model numbers of installed equipment and components, and other details of the work to be performed. Detailed cost estimates shall be required on Sketch Engineering projects.

Requirement: The Contractor shall develop sketch-engineering designs for construction "in-house" that fulfill the requirements of the design requests. Designs shall address and fulfill the specific requirements detailed in the approved Project Management Plan (PMP) including timeliness. All requests for design services shall be accomplished according to the priorities developed by the CO and fulfill the design requirements of the requestor as described in the PMP and or other Requirements Documents.

Standard: Shall comply with Facilities Engineering Project Management Manual, and the Configuration Management Manual. Meets quality, timeliness and documentation requirements.

2.6.2 Detailed Design Cost Estimates (IDIQ)

Requirement: The Contractor shall:

- a. Provide an itemized construction cost estimate with each design review package. A final construction cost estimate, based upon the final Government approved design, shall be provided with the final design. The final cost estimate shall accurately reflect the costs for work of a similar nature competitively bid at the location of the work.
- b. Utilize existing Government furnished Means Facilities Construction Cost Data in an electronic spreadsheet, or two fixed nodes of existing Government furnished Timberline Electronic Cost Estimating software.

Standard: Meets quality, timeliness and documentation requirements.

2.6.3 Design Specifications Production (Category 1) IDIQ)

Introduction: Specifications shall describe all major and minor equipment and systems as appropriate, in order for a construction bidder to have a complete understanding of the project requirements described in the design.

Requirement: The Contractor shall:

- a. For construction projects that are to be bid by outside construction firms, create new project specifications using NASA SPECSINTACT software and text. Each new or edited project specification shall be based upon marked-up specifications developed at various stages of design. The specification edits shall occur at 60%, 90%, and 100% design and are provided at the appropriate design review milestone.
- b. Proofread the marked-up specifications before editing begins to ensure an understanding of what and how the specification is to be edited. The edited product shall be free from technical and grammatical errors. The new or edited project specification shall accurately reflect the marked-up specifications and shall have no spelling, sentence structure, or punctuation errors. Specifications shall be complete and accurately detail the project. There shall be no more than a 5% increase in total project cost due to specification error, omissions, or discrepancies with the design drawings.

Track the number and value of change orders due to errors, omissions or discrepancies among actual on-site existing conditions, the design drawings, and the generated specifications.

Standard: Design specification shall meet quality, timeliness and documentation requirements.

2.6.3.1 Preparation, Distribution and Filing of Specifications and Reports

Requirement: The Contractor shall:

- a. Develop and implement a numbering system for the tracking of all specifications and reports.
- b. Prepare and distribute all specifications and reports.
- c. File all specifications and reports in the Central Engineering File area.

Standard: All requests for specifications and reports shall be fulfilled according to the PMP and shall meet all quality, timeliness and documentation requirements. All specifications and reports shall be filed according to the requirements

2.7 Construction Management and Inspection Services

2.7.1 Management of Contractor Administered Construction Sub-Contracts (IDIQ)

Introduction: The Contractor shall administer construction sub-contracts for construction activities at WFF and other remote locations. These services shall include, but not be limited to, soliciting, awarding, and administering construction contracts

Requirement: The Contractor shall:

- a. Provide supervision of staff, planning, documentation and reporting, preparation of bid packages, solicitation of bids, award and administration of subcontracts, and oversight and resolution of warranty issues. All subcontracts shall be completed in accordance with the Government approved schedule.
- b. Provide a complete record of each subcontract for the Government files within 45 days of project completion and acceptance by the Contracting Officer. The record shall comprise a history of the contract including a copy of the contract, all original approvals (shop drawings, material samples, and tests), construction logs and photographs, vouchers, invoices, inspection records, dig permits, change orders, claim, warranties, certification, and acceptance documents.

Standard: All services are completed in accordance with the Government approved schedule, are completed in a manner that results in no Contracting Officer validated customer complaints and fulfill documentation requirements.

2.7.1.1 Pre-solicitation Activities (IDIQ)

Requirement: The Contractor shall:

- a. Check documentation for accuracy, appropriate approvals, proper issuance by Engineering and for the reproduction of design documents as required. The Contractor shall be responsible for the development, approval, acquisition, and implementation of the project Statement of Work, NASA forms 1509 and 1510, material requests, and work requests for construction support.

Consider legal, labor, funding and safety requirements and provide necessary resolution of such issues.

Quality checks and reproduction are to be completed prior to the pre-bid distribution of documents. Development and approval of required documentation shall be completed prior to the pre-solicitation conference. Consideration and resolution of issues to be implemented prior to pre-solicitation conference.

Standard: Meets quality, timeliness and documentation requirements.

2.7.1.2 Solicitation Activities (IDIQ)

Requirement: The Contractor shall:

- a. Technically review the solicitation package for accuracy and for development of the anticipated construction schedule.
- b. Plan and manage the pre-bid conference, documentation and resolution of amendments and GFE issues that arise at that time.

Standard: Meets quality, timeliness and documentation requirements.

2.7.1.3 Award Activities (IDIQ)

Requirement: The Contractor shall:

- a. Management and document the Bid opening process.
- b. Develop the Implementation Cost Worksheet (which details design costs, construction cost estimates and available funds), Bid Summary, Technical Evaluation and updates to the Construction Report. The Contractor shall manage GFE issues and the coordination of the Post-Award conference.
- c. Upon obtaining approval from the CO, make award of subcontract(s) in accordance with 52.244-2
- d. All documentation is to be collected, registered and reported upon within five days. All items, excepting the Construction Report, to be developed and presented to the CO within five days of the bid opening. GFE issues shall be managed to resolution.

Standard: Meets quality, timeliness and documentation requirements.

2.7.1.4 Construction Activities (IDIQ)

Requirement: The Contractor shall:

- a. Process and deliver to the CO, all Subcontractor submittals with recommendations for approval or disapproval.
 - b. Review and submit in writing for approval by the CO, the Subcontractor's Proposed Construction Schedule and shall report to the CO regarding the amount of construction completion. The submittal review process shall be managed with the goal of minimal impact on the construction effort.
 - c. Conduct daily inspections of the project site keeping records of progress and issues in a daily construction log.
 - d. Insure that work is being performed as per approved project plans and specifications and that all codes and standards are being met and shall document discrepancies for review by CO.
- Perform quality control surveillance and document discrepancies for review by CO.

- f. Ensure the approval by the CO of all necessary permits and coordinate all elements of construction activities. These include updating construction reports, management of construction costs, Facility Change Requests, Material Safety Data Sheets (MSDS) issues, utility outages, safety compliance, mishap reporting, Subcontractor access to restricted areas and all related documentation including collection of all red-lined drawings. The proposed construction schedule as well as approvals of permits and coordination of construction activities shall be addressed daily.
- g. Meet with the CO weekly for briefing on status of all projects assigned to the Contractor.
- h. Change Requests shall be processed in accordance with Facilities Project Management Manual.

Standard: Meets quality, timeliness and documentation requirements.

2.7.1.5 Contract Closeout Activities (IDIQ)

Requirement: The Contractor shall:

- a. Collect and distribute, as specified in the construction specifications, all documentation related to the construction effort including required NASA forms, redlined drawings, Certificate of Completion documents, parts lists, warranties, equipment operations and maintenance manuals, vendor submittals and construction logs.
- b. Conduct a walk-through inspection of the completed work ensuring the completion, as specified, of all components of the subcontract. Inspection reports shall be provided in electronic and hard copy format to the CO within one week of completed work.
- c. Conduct a facilities maintenance assessment of all facilities and equipment installed under the contract and document in electronic and hard copy format to the CO all findings that will impact the operations, life-cycle, and maintainability of the installed systems and equipment.
- d. All document collection and distribution shall be complete prior to contract closeout approval. Walk-through shall be completed prior to final invoice and contract closeout approval. Written documentation shall be distributed to the CO and filed regarding completion of walk-through and resolution of all punch-list items.

Standard: Meets quality, timeliness and documentation requirements.

2.7.2 Construction Management for Government Procured Construction Contracts

2.7.2.1 Pre-Solicitation Activities (IDIQ)

Requirement: The Contractor shall:

- a. Check documentation for completeness and for appropriate approvals and issuance by Engineering.
- b. Be responsible for the reproduction of design documents.
- c. Develop a complete Statement of Work synopsis.
- d. Develop and implement the construction management Work Request as required.
- e. Quality checking is to be completed prior to the pre-bid distribution of documents. Reproduction is to be completed prior to the pre-bid distribution of documents. Work Requests shall be completed prior to solicitation.

Standard: Meets quality, timeliness and documentation requirements.

2.7.2.2 Solicitation Activities

(IDIQ)

Requirement: The Contractor shall:

- a. Review technical portions of the solicitation package for accuracy and return any relevant comments to the CO.
- b. Attend the pre-bid conference and document the details of the meeting, any proposed amendments and details of GFE issues to the CO.
- c. Attend the post-award conference and assist in the orientation of the accepted bidder. Documentation of all meetings shall be delivered to the CO within 48 hours of meeting.
- d. Review shall be completed prior to solicitation and all outstanding issues shall be managed to resolution.

Standard: Meets quality, timeliness and documentation requirements.

2.7.2.3 Construction Activities

Requirement: The Contractor shall:

- a. Coordinate the processing of all Contractor submittals including approvals by designated reviewers.
- b. Insure the all approval signatures are in place on appropriate documents.
- c. Insure that work is being performed as per approved project plans and specifications and that all codes and standards are being met. Discrepancies shall be documented and resolution recommended. The Contractor shall conduct daily inspections of the project site keeping records of progress and issues in a daily construction log available for review.
- d. Perform quality control surveillance and document discrepancies.
- e. Coordinate elements of construction activities including updating construction reports, change requests, MSDS issues, utility outages, permits, Contractor access to restricted areas and all related documentation including construction Contractor's issuance of completed redlined drawings within one week of completion of construction activities.
- e. Meet with the CO weekly for briefing on the current project status.
- g. All requirements of the Facilities Engineering Project Management Manual shall be adhered to.
- h. The submittal review and all other related processes shall be managed with the goal of minimal impact on the construction effort.
- i. All construction management requirement shall be addressed daily.
- j. Change Requests shall be processed in accordance with Facilities Project Management Manual.
- k. The requirement for briefing on current project status shall be addressed at a minimum of once weekly.

Standard: Meets quality, timeliness and documentation requirements.

2.7.2.4 Contract Closeout Activities

(IDIQ)

Requirement: The Contractor shall:

- a. Collect and distribute to the CO, all documentation related to the construction effort as defined in the construction specification and including required NASA forms, redline drawings, contract close-out documents, parts lists, warranties, equipment operations and maintenance manuals, submittals and construction logs.
- b. Conduct a walk-through inspection of the completed work ensuring the completion, as specified, of all components of the contract. Appropriate documentation shall be integrated into the FIS.
- c. Document collection and distribution shall be completed prior to contract closeout approval. Walk-through shall be completed prior to final invoice and COC approval.

Standard: Meets quality, timeliness and documentation requirements.

2.8 Surveying

(IDIQ)

Requirement: The Contractor shall:

- a. Perform surveying services for both NASA and Resident Agencies utilizing an electronic total station and a global positioning system. Services shall include interfacing with customer to clarify project requirements, determination of best method for data capture, field surveying, data processing, and mapping of captured data.
- . All captured data shall be provided within the timeframe agreed to by the CO, in an electronic format compatible with the FMB CAD software and the Geographic Information System and shall meet the requirements of the CAD Standards Manual.

Standard: Meets quality, timeliness and documentation requirements.

2.9 NAVY Facilities Planning and Real Property Record Support (Category 1)

Requirement: The Contractor shall:

- a. Provide an annual report, in electronic and hardcopy format, which evaluates and compares new facility requirements against existing assets and provides planning recommendations based on Navy Shore Facilities Planning System (SFPS) guidance documentation and current Navy mission requirements. This report shall be provided in conjunction with the space utilization plan, which is addressed in paragraph 2.2.9.
- b. Develop new and maintain the existing database of Basic Facility Requirements (BFR).
- c. Prepare appropriate project documentation for Navy projects, greater than \$300,000, in accordance with OPNAVINST 11010.20 (series) and NAVFACINST 11010.44 (series).
- d. Prepare new and modify existing Navy property records for Navy facilities.
- e. Prepare modifications to existing property records upon completion of any one time improvement or modification greater than \$5,000. A complete list of existing Navy Property Records is available in the library.

3.0 FACILITIES OPERATIONS AND MAINTENANCE

3.1 General Information

The Contractor shall provide broad and comprehensive support in facilities operation and maintenance basic requirements.

Open flame work will not be permitted unless the Contractor obtains prior clearances from the Emergency Services Section or the Fire Prevention Inspector.

All work shall be accomplished at the Wallops Flight Facility, Wallops Island, VA, inclusive of the Main Base, Island, and Tenant facilities located on or adjacent to these locations. The Island includes the Mainland connected by the Causeway. Temporary assignments at remotely located worldwide sites may also be required.

Operations and Maintenance requirements for Family Housing Navy (FNV) shall be requested by IDIQ task orders.

The Contractor shall supply all parts, components, and materials/supplies in the execution of the requirements of this section of the SOW. The items supplied shall be new or factory reconditioned parts and components. All replacement units, parts, components and materials/supplies used in the performance of the requirements shall be compatible with that existing equipment on which it is to be used; shall be of equal or better quality than original equipment specifications; and shall comply with the applicable contract specifications. All mechanical parts procured for use at WFF shall adhere to NASA Management Instruction 5320.7, *Basic Policy for Mechanical Parts Control*, which establishes the policy for controlling the selection, testing, and tractability of mechanical parts. As a minimum, the following part types are considered under the provisions of this instruction: bearings, washers, rivets, rings, spacers, studs, pins, valves, springs, and threaded fastening devices. Parts and components, once installed in the Government facility, become Government property. Items not listed in the technical specifications shall be of acceptable industrial grade and quality. If the original manufacturer has updated the quality of parts for current production, parts supplied under this contract shall equal or exceed the updated quality. The Contractor shall retain the parts replaced for at least 10 working days after completion of the job and make these parts readily available for inspection by the Contracting Officer upon request. The Contractor shall obtain and maintain manufacturer's operating instructions and maintenance manuals on all new equipment installed by the Contractor. These documents shall become property of the Government and shall be turned into the Contracting Officer within five working days after completion or termination of the contract.

3.2 General Requirements

3.2.1 Operations, Maintenance & Repair

Introduction: This section of the contract includes but is not limited to the operation, maintenance, and repair of all facilities and equipment, including but not limited to air conditioning/refrigeration, ground water remediation, utility services, electrical distribution systems, central steam generating, water and wastewater plants, and all their connecting distribution systems; independent boilers and furnaces; all equipment and personnel elevators and lifting devices; and obstruction lights. All work shall be performed in accordance with the Annual Work Plan (AWP) and NPR 8831.2, NASA Facilities Maintenance Management Guide. The SWP will delineate the Baseline work and the additional work to be performed by IDIQ task orders in accordance with Clause B.2.

Within ten calendar days following award of this contract, the CO will provide the Contractor with a list of Facility Operations Managers (FOM).

Requirement: The Contractor shall furnish all labor, supervision, tools, materials, incidental engineering, transportation, and management necessary for the operations, maintenance, and repair of buildings and structures, related systems and equipment, and for the provision of other miscellaneous services issued under task orders. This requirement shall include, but not be limited to the following:

- (1) Perform PM and PT&I in accordance with existing requirements specified in the CMMS. Within 120 days of contract startup the Contractor shall propose any changes in the existing schedules to the CO for approval.
- (2) Implement all necessary work control procedures to receive, record, and ensure timely processing of work requirements, as well as to permit tracking of work in progress.
- (3) Plan, estimate, and schedule work to assure material, labor, and equipment are available to complete work requirements within the specified time limits and in conformance with the quality standards.
- (4) Assure all requests are logged daily and entered into the CMMS. Service Requests must be approved by the CO prior to implementation.
- (5) Schedule and arrange work so as to cause the least interference with normal occurrence of WFF business and mission, particularly, in areas critical to mission support activities. Only in cases involving the threat of personal injury or equipment failure, shall equipment in mission critical areas be shut down without prior approval of the CO. Whenever such emergencies occur, the CO shall be notified immediately. The Contractor shall notify the FOM of any work to be performed in a building under the manager's control that would tend to disrupt the conduct of normal Government business. The Contractor shall notify the FOM at least two working days in advance of such scheduled work. Notification shall include the location of the work, type of work to be done, and the estimated completion date. The Contractor shall reschedule any work that the CO deems necessary to avoid unacceptable disruptions in the Government's business.
- (6) Provide verbal status reports when requested by the CO. The status of any item of work must be provided within one hour of the inquiry during regular working hours, and within three hours after regular working hours.
- (7) Record in the CMMS database all work accomplished including a descriptive narrative and labor hours, material used and its cost, and completion date.
- (8) The Contractor's Quality Control (QC) Plan shall reflect and incorporate the quality processes and quality management practices submitted in the technical proposal. For Navy facilities establish, implement and maintain a proactive quality control program that includes the Navy inspection standard MO 322.
- (9) Regardless of the type of work, i.e., trouble call, service request, etc. the Contractor is responsible for sustaining feed back and direct contacts with all customers. To promote good customer relations, the Contractor shall strive to ensure that in each case there is a complete mutual understanding of each work order's description of work, cost estimate, scheduling and access requirements; and that the quality level desired - and that to be delivered - are the same. The Contractor shall keep customers advised of any interference problems or necessary changes in the work, preferably in advance, and shall notify the customer and FOM within 10 days when the work is completed. A joint Contractor/FOM walk-through final inspection of the work is highly desirable in customer visible areas. The Contractor shall work with FOM's in accordance with paragraph 3.2.1(5).
- (10) Maintain the WFF Facilities Condition Assessment Program. This program is in an electronic database and shall be maintained up-to-date at all times. The Contractor shall utilize PT&I and PM data; operator, user, and FOM inputs; Construction of Facilities (CoF) and Center Funded Rehab & Mod program data; and specific facility condition inspections in keeping the assessment program current.

(11) The AWP shall be submitted to the Facilities Engineering Branch with a copy submitted to the Contracting Officer by July 31 of each year.

Standard: Work control center established and operating in accordance with requirements. Work completion recorded in accordance with requirements. PM and PT&I performed in accordance with existing schedule. All work documented and accomplished within time specified in requirements.

3.2.2 Computerized Maintenance Management System (CMMS) (Category 2)

Introduction: The existing WFF Computerized Maintenance Management System (CMMS) is manufactured by MAXIMO and consists of a set of computer software modules and equipment databases containing facility data with the capability to process the data for facilities maintenance management functions.

Requirement: The Contractor shall operate the GFE computer maintenance management system (CMMS) to provide work management/cost reports, manage the preventive maintenance program, record condition assessment data, accumulate necessary data and prepare Headquarters and WFF Metrics, enter and track trouble calls and other work such as repairs service request etc., and other on going reports. All maintenance data entered in the CMMS is Government property and must be turned over to the Contracting Officer within five calendar days after contract completion.

Standard: Project data entered in the CMMS per the requirement, and reports provided as requested. The Contractor shall comply with the NPG 8831.2, *NASA Facilities Maintenance Management Guide*.

3.3 Electric

3.3.1 High Voltage 12,470 – 7200 Volts

Introduction: Six CONECTIV Power Delivery aerial distribution power lines provide electricity to WFF. The operating voltage delivered by the electric utility is 12,470 – 7200 volts 3 phase 4-wire system. Five aerial distribution power lines provide electricity for the Main Base. One aerial distribution power line provides electricity for the Mainland and Island. The electrical distribution system at WFF is an aerial and underground system. The aerial section of the system at the Main Base consists of 2 electric utility poles and 1 steel structure. The aerial section of the system at the Mainland and Island consists of 2 electric utility poles. The remaining electric distribution system at both locations is an underground system either encased in raceways or is direct buried. The 15KV electrical distribution system is defined to include, but is not limited to: 15KV power VAC circuit breakers (to 1200 amps), protective relays, manually operated pad mounted switches (oil, air and SF6 gas type), pad mounted transformers, 15KV voltage regulators (to 12MVA), capacitors, 15KV single conductor cable, splices, terminations, lightning arresters, potential and current transformers, fuses and associated hardware.

Requirement: The Contractor shall:

- a. Comply with the Two Person Safety Rule. In the following situations the Contractor shall provide at least two (2) persons to work together – one (1) person, trained to recognize electrical hazards, shall be delegated to watch the movements of the other(s) doing the work so that the other(s) can be warned if they get dangerously close to live conductors or perform other unsafe acts and so that they can be assisted by that person in the case of an accident:
 - (a) Work on energized overhead lines, bus and switchgear.
 - (b) Work in energized substations.
 - (c) Work at remote or isolated locations.
 - (d) Work at night or during inclement weather conditions.
 - (e) Work involving handling energized conductors or apparatus.
 - (f) Confined space entry.

b. Provide for the operation, maintenance and repair (24 hours per day, 7 days per week) of the WFF 15KV electrical distribution system.

c. Operate and maintain the electrical systems and their associated components as defined herein and as recommended by the manufacturer. Contractor personnel working with and around high voltage distribution systems shall be trained, experienced and certified to work with them. The workmanship for new construction and renovation shall meet, as a minimum, the requirements as specified by the National Electrical Code (NEC) and applicable IEEE standards. The Contractor shall schedule and obtain approval from the CO for electrical power outages.

d. The overall quality of any repair, including materials, shall comply with the applicable SPECSINTACT and it's referenced codes and standards. Work shall be comparable to the original construction quality for the system or unit and shall be made in such a manner as to assure a safe and reliable electrical system.

e. Comply with the National Electric Code, NASA Goddard Safety and Health Program Plan (latest edition) and NASA Goddard Space Flight Center Electrical Safety Policy Manual.

Standard: Work performed on time in accordance with requirements and quality standards.

3.3.2 High Voltage 2400 – 1300 Volts

Introduction: The 2400--1300 volt distribution system is a 3 phase 4 wire underground (concrete encased raceways and direct buried) electrical distribution system that provides electricity to the airfield lighting system and 9 other sites located on the Main Base. The 2.4KV electrical distribution system is defined to include, but is not limited to: manually operated pad mounted switches (air type), pad mounted transformers, 5KV single conductor cable, splices, terminations, grounding, lightning arresters, constant current regulators, fuses, relays, control circuits and associated hardware.

Requirement: The Contractor shall:

a. Comply with the following Two-Person Safety Rule. In the following situations the Contractor shall provide at least two (2) persons to work together – one (1) person, trained to recognize electrical hazards, shall be delegated to watch the movements of the other(s) doing the work so that the other(s) can be warned if they get dangerously close to live conductors or perform other unsafe acts and so that they can be assisted by that person in the case of an accident:

- (1) Work on energized overhead lines, bus and switchgear.
- (2) Work in energized substations.
- (3) Work at remote or isolated locations.
- (4) Work at night or during inclement weather conditions.
- (5) Work involving handling energized conductors or apparatus.
- (6) Confined space entry.

b. Provide for the operation, maintenance and repair (24 hours per day, 7 days per week) of the WFF 2.4KV electrical distribution system.

c. Operate and maintain the electrical systems and their associated components as defined herein and as recommended by the manufacturer. Contractor personnel working with and around high voltage distribution systems shall be trained, experienced and certified to work with them. The workmanship for new construction and renovation shall meet, as a minimum, the requirements as specified by the National Electrical Code (NEC) and applicable IEEE standards. The Contractor shall schedule and obtain approval from the CO for electrical power outages.

d. The overall quality of any repair, including materials, shall comply with the applicable SPECSINTACT and its referenced codes and standards. Work shall be comparable to the original construction quality for the system or unit and shall be made in such a manner as to assure a safe and reliable electrical system.

e. Comply with the National Electric Code, NASA Goddard Safety and Health Program Plan (latest edition) and NASA Goddard Space Flight Center Electrical Safety Policy Manual.

Standard: Work performed on time in accordance with requirements and quality standards.

3.3.3 Service Entrance Systems to 600 Volts

Introduction: These systems provide a current path for service entrance between the facility transformer secondary bushings or subfeed from another source/facility and the facility main disconnecting means. Service entrance systems are defined to include, but not limited to: air or sandwiched busduct, busway, cablebus, multiplex conductor assemblies, conduit/wire systems, busbar (straight lengths, elbows, tee's, tap boxes, etc.) tap boxes, power takeoffs, plugs, multi-conductor cable, housings, insulation, hangers and associated hardware.

Requirement: The Contractor shall:

- a. Provide for the operation, maintenance and repair of the service entrance systems located at WFF.
- b. Comply with the National Electric Code, NASA Goddard Safety and Health Program Plan (latest edition) and NASA Goddard Space Flight Center Electrical Safety Policy Manual.

Standard: Work performed on time in accordance with requirements and quality standards.

3.3.4 Main Disconnecting Means To 600 Volts

Introduction: The main disconnecting means is a device, group of devices, or other means by which the conductors of a circuit can be disconnected from their source of power. The main disconnecting means is comprised of 240/120, 208/120 and 480/277 volt systems. The main disconnecting means is defined to include, but not limited to: Switchboards (indoor and outdoor type), metal clad switchgear, motor control centers, load centers, meters, meter enclosures and wiring, molded case circuit breakers, fuses, receptacles, distribution panels and their components for voltage transformation, grounding components, conduit/wire systems, protective relays and associated hardware.

Requirement: The Contractor shall:

- a. Provide operations, maintenance and repair of all main disconnecting means located at WFF.
- b. Comply with the National Electric Code, NASA Goddard Safety and Health Program Plan (latest edition) and NASA Goddard Space Flight Center Electrical Safety Policy Manual.

Standard: Work performed on time in accordance with requirements and quality standards.

metering, control circuits, circuit switching and system protection in the secondary electrical distribution system other than service entrance equipment.

3.3.5 Secondary Distribution Equipment to 600 Volts

Introduction: The secondary distribution electrical equipment at WFF is comprised of 240/120, 208/120 and 480/277 volt distribution, protection and switching equipment. Secondary distribution equipment is defined to include, but not limited to: Switching, interruption, control, metering, protective and regulating devices, together with their supporting structures, conductors, electrical interconnections and accessories, grounding, bus, bus supports, heaters, protective devices, enclosures, busbars and terminal connections, disconnects, fuses, contactors, motor overload relays, pilot and miscellaneous control devices, interlocks and associated hardware. Examples of these systems are switchboards, metal clad switchgear, motor control centers, load centers, meter panels or centers, molded case circuit breakers, distribution panels,

Requirement: The Contractor shall:

- a. Provide for the operation, maintenance and repair of all secondary electrical distribution equipment located at WFF.
- b. Comply with the National Electric Code, NASA Goddard Safety and Health Program Plan (latest edition) and NASA Goddard Space Flight Center Electrical Safety Policy Manual.

Standard: Work performed on time in accordance with requirements and quality standards.

3.3.6 Emergency Power Backup Systems

Introduction: These are systems which serve as an emergency source for supplying electrical power loads in the event of a service interruption or loss of electrical power. Emergency power backup systems are defined to include, but not limited to: Storage batteries, stationary and mobile electric generator sets, uninterruptible power systems (UPS) (energy storage batteries, rectifiers, inverters and associated controls), transfer switching devices, relay synchronizing, protective and auxiliary devices, alarms, control devices and systems, conductors, wiring components, grounds and associated hardware.

Requirement: The Contractor shall:

- a. Provide for the operation, maintenance and repair of all emergency power backup systems located at WFF to insure that emergency backup power is available and operational upon failure or outage of the normal source.
- b. Maintain all fixed-mounted UPS systems. The Contractor shall inspect each UPS system every 90 calendar days. The inspection shall include battery fluid level, leaks, cracks, and deterioration, test for specific gravity and voltage output as well as system current and voltage harmonic content, harmonic content of the ground and neutral currents, noise levels, static switch operation, switch closing time, battery bank current, and voltage output. The Contractor shall test all items under a simulated emergency. All defective batteries shall be replaced. The Contractor shall retain all inspection and test reports and enter the data, in a format approved by the CO, into the CMMS within one (1) calendar day after the test so that the CO can retrieve the information easily and promptly.
- c. Comply with the National Electric Code, NASA Goddard Safety and Health Program Plan (latest edition), NASA Goddard Space Flight Center Electrical Safety Policy Manual and industry standards.

Standard: Work performed on time in accordance with requirements and quality standards.

3.3.7 Lightning Protection Systems

Introduction: These systems comprise the lightning protection systems for all buildings and structures including electrical substations, towers, masts and antennas. Lightning protection systems are defined to include, but not limited to: Arresters, air terminals, shielding systems, overhead static wires, ground wires, ground rods, grids, plates and associated hardware.

Requirement: The Contractor shall:

- a. Provide for the inspection, maintenance and repair of all WFF lightning protection systems semi-annually.
- b. Comply with National Electric Code, and ANSI/IEEE requirements.
- c. Facilities that use or store explosives shall be inspected and tested IAW NASA Safety Standard 1740.12, Safety Standard for Explosives, Propellants and Pyrotechnics

Standard: Work performed on time in accordance with requirements and quality standards.

3.3.8 Obstruction and Warning Lighting Systems

Introduction: These systems comprise the aircraft and watercraft warning lighting system on towers, antennas, masts and bridges located at WFF. Obstruction and warning lighting systems are defined to include, but not limited to lamps, reflectors, globes, ballasts, timers, controls, fixture mounting systems, conduits, wiring and associated hardware.

Requirement: The Contractor shall:

- a. Provide for the operation, maintenance and repair of all WFF obstruction and warning lighting systems.
- b. Comply with National Electric Code, and FAA requirements.

Standard: Work performed on time in accordance with requirements and quality standards.

3.3.9 Airfield Lighting System. 2400 – 1300 Volts

Introduction: The airfield lighting system provides lighting for aircraft operations. The airfield lighting system is defined to include, but not limited to: Taxiway lighting, runway lighting, REIL lighting (runway end identification lights), PAPI lighting (precision approach path indicator), runway identification signs, vehicle warning crossing lights, recessed runway and taxiway lighting, rotating beacon, tetrahedron, 5KV single conductor cable, metal transformer vaults and covers, transformers, lighting fixture mounts, splices, connectors, constant current regulators, arresters, switches, control systems and wiring, relays and associated hardware.

Requirement: The Contractor shall:

- a. Provide for the operation, maintenance and repair of the airfield lighting system.
- b. Comply with the National Electric Code, NASA Goddard Safety and Health Program Plan (February 1997) and NASA Goddard Space Flight Center Electrical Safety Policy Manual, FAA requirements.

Standard: Work performed on time in accordance with requirements and quality standards.

3.3.10 Exterior Lighting Systems to 600 Volts

Introduction: The exterior lighting systems provide lighting for: Roadways, parking areas, aircraft hangers, building entrances/exits, safety, and security located at Wallops Flight Facility. Exterior lighting systems is defined to include, but not limited to: lamps, reflectors, lens, fixture mounting assemblies, ballasts, poles (concrete and wood), conductors, conduit, control devices (photocells and timing devices), circuit breakers, fuses, switches, contactors and associated hardware.

Requirement: The Contractor shall:

- a. Provide for the operation, maintenance and repair of all WFF exterior lighting systems.
- b. Comply with the National Electric Code, NASA Goddard Safety and Health Program Plan (February 1997) and NASA Goddard Space Flight Center Electrical Safety Policy Manual.

Standard: Work performed on time in accordance with requirements and quality standards.

3.3.11 Interior Lighting Systems to 600 Volts

Introduction: These systems comprise the building or facility interior general area lighting from the panel board to the end user. The interior lighting system is defined to include, but not limited to: fixtures, lamps, ballasts, reflectors, lens, diffusers, fuses, switches, circuit breakers, mounting assemblies, conductors, conduit, controls and associated hardware.

Requirement: The Contractor shall:

- a. Provide for the operation, maintenance and repair of all WFF interior lighting systems.
- b. Comply with the National Electric Code, NASA Goddard Safety and Health Program Plan (February 1997) and NASA Goddard Space Flight Center Electrical Safety Policy Manual.

Standard: Work performed on time in accordance with requirements and quality standards.

3.3.12 Emergency Lighting Systems to 600 Volts

Introduction: These systems provide life safety lighting including, but not limited to: emergency lighting units, exit lighting, stairwell and egress lighting. Emergency lighting systems must energize automatically upon loss of normal utility power or normal lighting. Light levels must be maintained to provide enough illumination to allow safe egress from the areas involved. Emergency lighting systems are defined to include, but not limited to: lamps, reflectors, ballasts, lens, diffusers, emergency power supplies, batteries, conduit, wiring and associated hardware.

Requirement: The Contractor shall:

- a. Provide the operation, maintenance and repair of all WFF emergency lighting systems/fixtures.
- b. Comply with the National Electric Code, NASA Goddard Safety and Health Program Plan (February 1997) and NASA Goddard Space Flight Center Electrical Safety Policy Manual.

Standard: Work performed on time in accordance with requirements and quality standards.

3.4 Electronic Control Systems

3.4.1 Fire Detection System

Introduction: The alarm systems for fire detection are located at various facilities through out Wallops Flight Facility (WFF). Fire detection systems are defined to include, but are not limited to: fire protection system central alarm receiver, interface devices, fire alarm control panels, initiating devices, audible alarm devices, visual alarm devices, signaling circuitry, cable, auxiliary relays and devices, annunciator panels and associated hardware.

Requirement: The Contractor shall:

- a. Provide 24 hours per day, 7 days per week operation, with maintenance and repair of fire detection systems during normal working hours. The Contractor shall respond to after hour trouble calls as required by the National Fire Protection Association Code (NFPA).
- b. Comply with all applicable NFPA, National Electric Code and NASA Safety Standard for Fire Protection (NSS 1740.11)

Standard: Work performed on time in accordance with requirements and quality standards.

3.4.2 Fire Protection Systems.

Introduction: The facility water, halon, carbon dioxide and FM-200 fire protection systems are located in various facilities through out WFF. Fire protection systems include, but are not limited to: piping, valves, sprinkler heads, booster pumps, wet pipe sprinkler systems, dry pipe sprinkler systems, air compressors, deluge systems, flow switches, tamper switches, pipe hangers and supports, fire hydrants, diesel and electric fire pumps and associated hardware.

Requirement: The Contractor shall:

- a. Provide 24 hours per day, 7 days per week operation, with maintenance and repair of fire protection systems during normal working hours. The Contractor shall respond to after hour trouble calls as required by the NFPA Code.
- b. Comply with all applicable NFPA, National Electric Code and NASA Safety Standard for Fire Protection (NSS 1740.11)

Standard: Work performed on time in accordance with requirements and quality standards.

3.4.3 Security Systems

Introduction: The alarm systems for security are located in various facilities through out WFF. Systems include, but are not limited to: power supplies, secure access switches, motion detectors, balance magnetic switches, capacitance detectors, vibration detectors, control panels, raceways, wiring and associated hardware.

Requirement: The Contractor shall:

- a. Provide 24 hours per day, 7 days per week operation, with maintenance and repair of security systems during normal working hours. The Contractor shall respond to after hour trouble calls as required by the NASA Security Handbook (1620.3).
- b. Comply with all applicable National Electric Code and NASA Security Handbook (1620.3) requirements.

Standard: Work performed on time in accordance with requirements and quality standards.

3.4.4 Energy Management and Control System (EMCS) (Category 2)

Introduction: The energy management and control system (EMCS) is a distributed network of stand alone controls, which interface with two control consoles for monitoring and operator adjustment. The system is used to control and monitor a wide variety of equipment and processes. The EMCS central consoles serve as the central control point for real time monitoring, operation and management of facility systems and utilities throughout WFF. The EMCS is Johnson Controls Inc. METASYS, 9.01 version. The EMCS is connected to and controls building HVAC systems and monitors potable wells, sewage lift stations and electrical power. The system is defined to include, but not limited to: Network control modules, modem racks, RS485 racks, DX-9100 controllers, XT-9100 controllers, unitary controllers, air handling unit controllers, variable air volume controllers, DS-8500 controllers, electric power monitors, circuit integrators, radar frequency controllers, keyboards, monitors, printers, tape/disk drives, power protection devices, software, instrumentation, signal cables/wiring, telecommunications links, and associated equipment.

Requirement: The Contractor shall:

- a. Provide 24 hours per day, 7 days per week operation, with maintenance and repair of the EMCS during normal working hours. The Contractor shall respond to after hour trouble calls in accordance with Section 1.1.2 (Work Reception and Control). The Contractor shall provide the necessary support for factory upgrading of software and the addition of monitoring/control points in new facilities or systems throughout WFF. The Contractor shall provide staffing for the operation of all consoles, perform database management, backup to protect the software, real time management and notification of site utility outages/activities.
- b. Comply with NPG 8831.2, NASA Facilities Maintenance Management Guide.

Standard: Work performed on time in accordance with requirements and quality standards.

3.5 Mechanical

3.5.1 Heating, Ventilation, & Air Conditioning, and Refrigeration

Introduction: Heating, ventilation, & air conditioning (HVAC) and refrigeration systems include various types of equipment ranging from small water coolers to a 600-TON chill water loop system. The Contractor shall maintain all exhaust fans, which include but are not limited to those fans monitored by GSFC Industrial Hygienist. The inventory consists of more than 1200 serviceable air conditioning and refrigeration units and components that include but are not limited to: Air handling units, package a/c units, heat pumps, window a/c units, cold food bars, ice machines, refrigerators, chillers, pumps, dehumidifiers, humidifiers, motors, electronic air cleaners, freezers, control panels, cooling towers, exhaust fans and air-compressors.

Requirement: The Contractor shall:

- a. Maintain, service and repair all commercial and domestic air conditioning systems, units, and associated components relative to providing exhaust, climate control and/or refrigeration.
- b. Comply with all Federal requirements in maintaining, servicing, repairing and disposing of equipment containing CFC and HCFC (ozone depleting substances) refrigerants.
- c. Comply with equipment manufacturer specifications, National Building/Electrical/Plumbing Codes, Federal, NASA and local regulations.

Standard: Work performed on time in accordance with requirements and quality standards.

3.5.2 Mobile Cranes & Rigging

Introduction: Mobile Cranes include but are not limited to hydraulic rough terrain and truck cranes up to 65 ton capacity and conventional track crawler cranes up to 100 ton capacity.

Requirement: The Contractor shall:

- a. Perform specialized rigging and load lifting in support of O&M requirements and customer/tenant requirements.
- b. Also perform routine inspection, testing, maintenance, repairs and general preventive maintenance procedures on mobile and rigging equipment during normal working hours and on 24-hour call-in basis.
- c. Comply with the NASA Safety Standard for Lifting Devices and Equipment, NSS/GO-1740.9 and all applicable OSHA, ANSI and PCSA requirements.

Standard: Work performed on time in accordance with requirements and quality standards.

3.5.3 Fixed Cranes

Introduction: Fixed cranes include all overhead bridge, monorail, and chain hoists permanently installed in a fixed location.

Requirement: The Contractor shall:

- a. Perform specialized rigging and load lifting in support of O&M requirements and customer/tenant requirements.
- b. Perform routine inspection, testing, maintenance, repairs and general preventive maintenance procedures on all WFF fixed cranes during normal working hours and on 24 hour call-in basis.
- c. Comply with the NASA Safety Standard for Lifting Devices and Equipment, NSS/GO-1740.9 and all applicable OSHA standards.

Standard: Work performed on time in accordance with requirements and quality standards.

3.5.4 Elevators

Introduction: This section includes all personnel and service elevators located at WFF.

Requirement: The Contractor shall:

- a. Maintain, service, perform P/M and inspect all elevators at WFF.
- b. Comply with the NASA Safety Standard for Lifting Devices and Equipment, NSS/GO-1740.9, manufacturers' recommendations, OSHA and NASA safety standards.

Standard: Work performed on time in accordance with requirements and quality standards.

3.5.5 Heavy Equipment

Introduction: The Contractor shall provide operations and maintenance of specialized heavy equipment including but not limited to: Backhoes, front end loaders, excavators, bulldozers, motor graders, runway sweepers, vibratory compactors, dump trucks with snow plow and spreader capabilities and other various construction type equipment.

Requirement: The Contractor shall:

- a. Operate WFF specialized heavy equipment. The Contractor shall provide general equipment maintenance and repairs. This requirement may occur during normal working hours, on 24 hour call in basis, and at on-site and off-site projects.
- b. All equipment shall be maintained and inspected in conformance with all applicable industry and manufacturer standards and recommendations. Equipment shall be operated using the utmost safety precautions. Unscheduled response time shall be in accordance with trouble call requirements.

Standard: Work performed on time in accordance with requirements and quality standards.

3.5.6 Welding

Introduction: Welding activities include but are not limited to welding of carbon steel, aluminum and stainless steel. Work is performed in the field and in the shop area.

Requirement: The Contractor shall:

- a. Provide welding services as required for the operation and maintenance of WFF and for tenants/customers.
- b. Comply with all applicable OSHA and ANSI safety standards. The Contractor shall supply welding services up to and including Section IX of the ASME Boiler and Pressure Code.

Standard: Work performed on time in accordance with requirements and quality standards.

3.6 Other Facility Systems

3.6.1 Structural

Introduction: Other facilities include the interior and exterior of buildings, and miscellaneous facilities components. Components include but are not limited to pavement, sidewalks, towers, concrete pads, parking areas, fencing, and retaining walls.

Requirement: The Contractor shall:

Maintain and repair facilities systems and components. Work performed shall ensure safe, reliable, and available facilities and shall comply with the NPG 8831.2, *NASA Facilities Maintenance Management Handbook* and BOCA standards.

a. Carpentry: Carpentry work shall include the internal and external maintenance and repairs of approximately 500 structures and components. This includes, but is not limited to, doors, windows, floors, ceilings, finish trim, hardware, roofs, and exterior finishes.

b. Masonry: Masonry work shall include the interior and exterior repair and maintenance of approximately 500 structures and components and approximately 650,000 sq. yds. of paved surfaces. This includes, but is not limited to, concrete pads, sidewalks, brick structures, foundations, pavement, concrete cutting and runway repair.

c. Painting/Finishing/Coating: Painting work shall include, but is not limited to, the interior and exterior of approximately 500 structures and components, and 15 towers. Work includes preparation of surfaces, application of a wide variety of coatings and finishes, and fabrication of signage. Coatings shall be applied to walls, floors, ceilings, trim, roofs, building exteriors, runway and parking surfaces.

d. Cabinetmaking: The cabinetmaker shall fabricate a wide variety of custom cabinets and building components. These shall include, but not limited to, desks, countertops and cabinets, frames, plaques, bookends, and custom built jogs and cases.

e. Sheetmetal: The sheetmetal mechanic shall fabricate and modify sheetmetal components. This work is in support of all trades and includes but is not limited to ductwork flashings, trims, ventilation assemblies, and structural components.

Standard: Work performed on time in accordance with requirements and quality standards.

3.6.2 Mechanical Operated Doors

Introduction: There are 4 sets of Aircraft Hanger Doors and 175 mechanically operated overhead doors located at WFF.

Requirement: The contractor shall maintain, service, perform PM, and repair or replace damaged equipment or components on all mechanical operated doors. The PM and service shall be performed on a regular basis as determined by the manufacturer's requirements.

Standard: Work performed on time and in accordance with requirements and quality standards.

3.6.3 Air Compressors (non-HVAC type)

Introduction: There are specialized air compressors and dryer systems used at WFF to provide, but not limited to, regular shop air, paint spraying air, pneumatic controls, hydraulic controls, etc.

Requirement: The contractor shall provide PM procedures, maintenance and repairs and replacement of units or components as needed to maintain compressor and dryer systems in working order.

Standard: Work shall be performed to meet all ANSI and NASA standards for air compressor systems and shall meet quality standards.

3.6.4 Seawall Maintenance and Repair (IDIQ)

Introduction: Wallops Island has approximately 4 miles of armor stone seawall.

Requirement: The contractor shall use heavy equipment as needed to maintain and repair the seawall and seawall access roads.

Standard: Work shall be performed on time and in accordance with requirements and quality standards.

3.7 Utilities

3.7.1 Central Steam Plant

Introduction: The central steam plant houses 3 boilers ranging from 500HP to 700HP providing steam to 29 buildings. Equipment to be maintained includes but is not limited to boilers, pumps, valves, steam lines, etc. Historically, the after hours trouble desk and EMCS monitoring terminal has been located in the Central Heating Plant.

Requirement: The Contractor shall:

- a. Operate the central steam plant on a 24 hour per day, 7days per week schedule for approximately 215 days per year from early fall to late spring.
- b. Furnish all labor, supervision, tools, materials, transportation, and management necessary for the operation, monitoring, preventive maintenance, trouble calls, repair and overhaul of the Central Steam Plant (Building D-8) equipment, associated steam distribution and condensate return systems.
- c. Comply with all codes and regulations prescribed by the Navy Facilities Engineering Command, Atlantic Division, in NAVFAC-MO-205, Central Heating and Steam Electric Generating Plants, Volumes I through 5; and NAVFAC-MO-322, Inspection for Maintenance of Public Works and Public Utilities, Volume I shall apply.
- d. Comply with the WFF Boiler Plant O&M Manual.
- e. Monitor the fuel oil storage tanks daily for leaks, spills or repairs.

Standard: Work performed on time in accordance with requirements and quality standards.

3.7.2 Stand Alone Heating Plants

Introduction: Stand alone heating plants consist of small stand alone boilers and hot air furnaces. These include but are not limited to hot air furnaces, boilers, pumps and associated piping, fuel tank alarm systems, and burners.

Requirement: The Contractor shall:

- a. Continuously inspect, monitor, maintain, operate, and repair the 48 boilers and hot air furnaces located in various buildings at WFF.
- b. Comply with the manufacturer's recommendations, O&M manuals, P/M programs and procedures, and current predictive testing technology.
- c. Monitor the fuel oil storage tanks daily for leaks, spills or repairs.

Standard: Work performed on time in accordance with requirements and quality standards.

3.7.3 Water Plants

Introduction: Two water plants supply potable water for WFF. The water plants include but are not limited to pumps, high rise tanks, potable water, fire pumps, chlorine, flow meters and charts, testing, and state certification.

Requirement: The Contractor shall:

- a. Operate and maintain the water plants 24 hours per day, 7 days per week, 365(366) days per year.
- b. Operate the water plants in accordance with the current Virginia Dept. of Health permits for the Main base, Mainland and Island and comply with all local, state and federal regulatory requirements.

Standard: Work performed on time in accordance with requirements and quality standards.

3.7.4 Wastewater Treatment Plants

Introduction: There are two wastewater plants. The wastewater treatment plant at the WFF Main Base also serves the Island by way of an interconnecting forced main. The Contractor shall also operate and maintain the wastewater treatment plant at the Chincoteague Coast Guard Station, Chincoteague Island, Virginia. The wastewater plants are defined to include but are not limited to pumps, lift stations, bi-filter, digester, grit remover, cummunators, primary clarifier, flow meters and charts.

Requirement: The Contractor shall:

- a. Operate and maintain the wastewater treatment plants and collection system 24 hours per day, 7 days per week, 365(366) days per year.
- b. Operate and maintain the wastewater treatment plants in accordance with the State approved O&M manual, the current VPDES permit, and comply with all local, state, and federal regulatory requirements.

Standard: Work performed on time in accordance with requirements and quality standards.

3.7.5 Ground Water Remediation

Introduction: The ground water remediation system at WFF is defined to include but is not limited to pumps, tanks, piping, filters, clarifiers and chemical treatment equipment.

Requirement: The Contractor shall:

- a. Operate, maintain, perform compliance sampling and daily monitoring of all groundwater remediation systems, assuring replenishment of consumable supplies, such as chemicals and filters.
- b. Comply with the Corrective Action Plan submitted to the state of Va. by NASA.
- c. Comply with federal, state, and local environmental laws, regulations, directives, and rules pertaining to ground water remediation.

Standard: Work performed on time in accordance with requirements and quality standards.

3.7.6 Aviation Fuel Farm

Introduction: The aviation fuel farm supplies fuel for all Wallops Aircraft. The Contractor shall be responsible for monitoring and performing all maintenance and repairs at WFF. The aviation fuel farm consists of pumps, valves, piping and other associated components.

Requirement: The Contractor shall:

- a. Perform maintenance (including preventative maintenance) and repairs on all fuel farm equipment.
- b. Comply with NASA, Federal, State, and local environmental laws, regulations, directives, and rules pertaining to aviation fuel farms.

Standard: The activities will be conducted in accordance with approved work instructions and in conjunction with the Fuel Farm Manager. All services will be performed in accordance with paragraph 420 of the GSFC-WFF Airport Operations Manual. Tasks performed in accordance with time frames, quality standards and requirements specified, and documentation prepared as required.

3.7.7 RESERVED

3.7.8 Backflow Prevention

Introduction: There are 99 sites where backflow preventors are located at WFF.

Requirement: The Contractor shall:

- a. Perform maintenance and testing on all backflow preventors at WFF in accordance with the PM program.
- b. Comply with federal, Virginia Dept of Health, and local environmental laws, regulations, directives, and rules pertaining to backflow prevention.

Standard: Work performed on time in accordance with requirements and quality standards.

3.7.9 Fire Protection Systems

Introduction: There are 3 – 10k gpm pumps on the Mainbase and 1 - 750 gpm on Wallops Island.

Requirement: The contractor shall:

- a. Perform maintenance and testing of all fire pumps in accordance with the established PM (Preventative Maintenance) program.
- b. Comply with Federal, Commonwealth of Virginia Dept. of Health, and local environmental laws, regulations, directives, and rules pertaining to fire pumps.

Standard: Work performed on time in accordance with requirements and quality standards.

3.8 Change of Occupancy Services (IDIQ)

Introduction: Change of occupancy of Navy family housing units includes but is not limited to all maintenance, repair/replacement and other work as required to make a vacant family housing unit ready for the next resident. Work may include replacement of floor coverings.

Requirement: The Contractor shall:

- a. Provide change of occupancy services beginning at 8:00 a.m. on the first Contractor workday following the final termination inspection by the Government. Change of occupancy services shall include interior painting, plumbing, HVAC, electrical, carpentry and making necessary repairs/replacements. The Contractor shall also repair or replace damaged, inoperative, or missing interior accessories including but not limited to paper holders, door bells, soap trays, smoke detectors, door stops, light fixtures, globes and mini-blinds.

b. Comply with the NPG 8831.2, *NASA Facilities Maintenance Management Guide*, and BOCA standards. All work shall be completed within five (5) Contractor working days after the change of occupancy period begins.

Standard: Work performed on time in accordance with requirements and quality standards.

3.9 Pest/Nuisance Vegetation Management and Animal Control

3.9.1 Pest Management

Introduction: Control of pests and nuisance vegetation at WFF includes but is not limited to control of weeds on sidewalks, runways and paved surfaces and pests (insect type) in or around the interior and exterior of facilities.

Requirement: The Contractor shall:

- a. Provide an integrated pest and vegetation control plan to control pests and nuisance vegetation at WFF, and shall implement approved plan.
- b. All pesticides (herbicides, insecticides, etc.) used by the Contractor shall be registered with the EPA. No pesticides are to be applied without the prior approval of the Navy Pest Management Coordinator (Navy areas) or the CO (NASA areas). All pesticide usage shall be in strict conformance with label directions. The Contractor shall maintain a label book of pesticides used and have it readily available for the CO's inspection at all times.
- c. Comply with all applicable Federal, State and NASA safety standards for the application, storage and disposal of pesticides and herbicides.

Standard: Work performed on time in accordance with requirements and quality standards.

3.9.2 Animal Control (IDIQ)

Introduction: Animal control, in this section of the SOW, defines non-insects such as deer, snakes, birds, raccoons, skunks, cats, dogs, and any and all other rodents or animals.

Requirement: The Contractor shall:

- a. Be responsible for the general control of the "natural inhabitants of the WFF" and other unleashed animals when they become injured, entrapped, or become a nuisance or hazard to WFF employees and visitors.
- b. Coordinate with local animal authorities in the capture and removal of animals and report to the Government of all actions taken.

Standard: All requirements are performed accurately, in a timely manner, and in accordance with all references, directives, and SOPs.

3.10 Salvageable Materials and Debris

Introduction: Excess salvageable equipment and material includes but is not limited to obsolete or damaged equipment and materials which have salvageable value as determined by the Government.

Requirement: The Contractor shall:

- a. Dispose of all excess salvageable equipment and material in accordance with GSFC Handbook 4300.6. The Contractor shall procure a permit from the local Accomack County Landfill to discard debris related to work at WFF.
- b. Comply with all applicable NASA, Federal, State, and local waste disposal laws and regulations.

Standard: Work performed on time in accordance with requirements and quality standards.

6.0 CUSTODIAL SERVICES AND SOLID WASTE

6.1 General Information

Introduction: Custodial services for NASA Wallops Flight Facility (WFF) occurs during, but not limited to, the hours of 0600 and 1600. NASA requires services for approximately 51 buildings on the Main Base, 30 Buildings on Wallops Island, and 8 buildings on the Mainland site of the Island (hereinafter referred to as the Mainland). These buildings include approximately 460,556 sq. ft. of office areas, 354,133 sq. ft. of shop and computer areas, 110,626 sq. ft. of storage area, and 21,500 sq. ft. of rest rooms. Staffing at WFF consists of approximately 1200 personnel. Approximately ten percent of the office area is carpeted.

Custodial services are also required for the Visitor Information Center, buildings J-17, J-20, and J-93 between the hours of 0700 and 1000 and between the hours of 1300 and 1430, Thursday through Monday from September 4 through June 25, and 7 days per week from June 26, through September 3. The square footage for these buildings are included in the square footage listed above. Services are also required on three (3) Government Holidays per year, Memorial Day, July 4, and Labor Day.

The Contractor shall provide cleaning services for the NASA Cafeteria/Exchange, building E-2 between the hours 2030 and 2230, Monday through Friday. Custodial services shall also be provided for the Telecommunication Facility, building N-162 between the hours of 1000 and 1300, Monday through Friday, and between the hours of 1430 and 1530, seven days per week including holidays.

The Contractor shall also provide cleaning services and materials to the Surface Combat Systems Center (SCSC), buildings R-23, R-25, R-30, Q-29, V-10, V-20, V-24, and U-90 between the hours 0600 and 1430 five days per week excluding holidays. These buildings include approximately 181,950 sq. ft. of office, shop, rest rooms, hallways, entrances, and computer areas. Navy Housing Area, Q-1 through Q-28, and Q-31 through Q-53 shall be cleaned by the Contractor by issuing IDIQ task orders. Approximately 95% of the office area is carpeted.

Services that will normally be required shall include, but not be limited to the following: All dusting, washing, mopping, scrubbing, polishing, wiping, vacuuming, shampooing, stripping, waxing, buffing, and trash removal of all areas designated.

Intrusive floor care operations (stripping, waxing, buffing, carpet shampooing) are to be performed outside of normal working hours (0700 – 1600 hrs).

WFF provides solid waste removal for the NASA facility, Navy, and National Oceanographic and Atmospheric Administration (NOAA) Command and Data Acquisition Station. The services for NASA and Navy facilities will consist of removal of Solid Waste from the Main Base, Mainland, and Wallops Island. All containers shall be emptied between 0800 and 1600 Monday through Friday.

6.2 Restrooms

Introduction: The Contractor will provide cleaning services for approximately 215 NASA rest rooms and 20 Navy rest rooms at WFF.

Requirement: The Contractor shall inspect, replenish supplies, clean, and disinfect all rest rooms, once per day, 5 days a week, Monday through Friday. All waste containers shall be emptied, disinfected and plastic liners replaced.

a Toilet Cleaning

The Contractor shall clean all toilets. Toilet cleaning includes wiping and brushing the inside and outside of toilets with an all-purpose synthetic detergent or soap solution. The Contractor shall remove stains, deposits, and dirt. The Contractor shall clean as far as possible into the toilet traps, thoroughly clean around the inside rim of the toilet bowls, and clean the toilet seats. The Contractor shall flush the toilets to rinse the inside of the toilet bowls of all debris and cleaning solution. The Contractor shall use and provide odor control chemicals or devices approved by the CO for each toilet.

Standard: A clean toilet is a toilet that has been disinfected and is free of all deposits, stains, dust, hair, streaks, marks, film, and odor.

b Urinal Cleaning

The Contractor shall clean all urinals in the same manner as toilets. The Contractor shall use and provide odor control chemicals or devices approved by CO for each urinal. Any odor control devices shall be maintained and replaced to remain functional and present a clean appearance.

Standard: A clean urinal is a urinal that has been disinfected and is free of all deposits, stains, dust, hair, streaks, film, and odor.

c Cleaning Sinks and Washbowls

The Contractor shall clean all sinks and washbowls. This includes cleaning countertops. The Contractor shall remove grease and other dirt with an all-purpose synthetic detergent or soap solution. The Contractor shall remove stains with scouring powder. The Contractor shall clean chromium-plated hardware with care so that the finish is not damaged.

Standard: A clean sink or washbowl is a sink or washbowl that has been disinfected and is free of all deposits, stains, dust, dirt, hair, streaks, grease, film, and odor.

d Cleaning Rest Room Floors

The Contractor shall clean rest room floors. The Contractor shall thoroughly scrub the areas immediately around urinals and toilets. The Contractor shall clean, sweep/dust mop, vacuum, and mop with a disinfectant.

Standard: A clean rest room floor is a rest room floor (including tile and grout) that has been disinfected and is free of deposits, stains, dust, dirt, streaks, hair, grease, film, and odor in all areas.

e Spot Cleaning Rest Room Walls and Ceilings

The Contractor shall spot clean rest room walls and ceilings including perimeter walls, tiles walls, partitions, and woodwork. The Contractor shall clean walls and ceilings with all-purpose synthetic detergent or soap and rinse them with clean, clear water. The Contractor shall spot clean walls and ceilings of deposits, stains, and marks as they appear.

Standard: A clean rest room wall or ceiling is a rest room wall or ceiling that has a uniformly clean appearance and is free of deposits, dirt, dust, hair, film, streaks, and odor in all areas.

f Cleaning and Refilling Dispensers

The Contractor shall supply, install, and maintain wall mounted soap, paper towel, feminine hygiene product, and tissue dispensers. The Contractor shall clean and refill paper towel, toilet paper, toilet seat cover, sanitary napkin, tampon, and soap dispensers. The Contractor shall clean and check soap

dispenser nozzles to make sure they operate properly. The Contractor shall not overfill paper towel or soap dispensers to ensuring proper operation.

Standard: A clean dispenser is a dispenser free of dirt, dust, streaks, deposits, build-ups, and odor. A refilled dispenser is a dispenser containing its intended contents to its full capacity, but not overfilled.

g Cleaning Mirrors

The Contractor shall clean mirrors. The Contractor shall not use ammonia or products containing ammonia to clean mirrors.

Standard: A clean mirror is a mirror with all surfaces free of streaks, films, deposits, stains, and odor. A clean mirror has a uniformly bright appearance and adjacent surfaces have been wiped cleaned.

h Cleaning Showers

The Contractor shall clean all showers. This includes enclosures, curtains, tiled walls, showerheads, soap dishes, and faucets. The Contractor shall remove soap residue, stains, deposits, and other dirt with an all-purpose synthetic detergent, scouring powder, or soap solution. The Contractor shall clean chromium-plated hardware with ease so that the finish is not damaged. The Contractor shall notify the CO when new shower curtains/liners require replacement.

Standard: A clean shower is a shower that has been disinfected and is free of all deposits, stains, dirt, hair, streaks, grease, film, and odor.

6.3 Dusting/Cleaning

Introduction: Dusting/cleaning services include removing dust, lint, litter, bugs, and other foreign matter from all horizontal and vertical surfaces. Dusting/cleaning consists of two types, Low and High and shall include the following:

6.3.1 Low Dusting/Cleaning

Requirement: The Contractor shall remove, from exposed areas, all dust, lint, litter and other foreign materials from all horizontal and vertical surfaces of tables, chairs, file cabinets, book cases, baseboards, ledges, doors, piping, radiators, convectors, shelving, trim, walls, frames, hvac louvers, horizontal and vertical blinds, windowsills, diffusers, grills, corners, behind doors, and return-air vents every 30 days for NASA facilities and once per week for Navy facilities. Cleaning/polishing will be performed on wood furniture, fixtures, walls, and vestibule doors with an approved wood cleaner, oil, and/or polish. Treated clothes shall not be used on glass surfaces. Walls, doors, and partitions shall be wiped clean (including glass in partitions and doors) to a height of 7'0" above floor level. The Contractor shall not dust typewriters, adding machines, personal computers, and similar equipment. The Contractor shall provide a low dusting/cleaning schedule to the CO.

Standard: Low dusting/cleaning shall be performed in accordance with the above requirements and approved schedule. When properly cleaned, all areas to be dusted shall be free of dust, soil, cobwebs, bugs, trash, refuse and any other foreign material with no streaks. Corners, crevices, moldings, and edges shall be free of all dust.

6.3.2 High Dusting/Cleaning

Requirement: The Contractor shall remove all dirt, soil, bugs, cobwebs, and other foreign matter from items, corners, and from horizontal and vertical surfaces (including fixtures) up to 12 feet in height and

lobbies, entrances, and stairwells exceeding 12 feet in height once a year. If during the cleaning/dusting process any adjacent areas become contaminated with foreign matter, including dust, dirt or cleaning product residue, those areas shall also be cleaned. All items moved to accomplish this task shall be returned to their original position. The Contractor shall provide a High Dusting/Cleaning schedule to the CO.

Standard: When properly cleaned, all dusted surfaces shall be clean and have a uniform appearance, free of any dust, dirt, debris, streaks, and smudges.

6.4 Floor Cleaning

Introduction: The Contractor shall provide floor maintenance for all floors including carpeting, ceramic tile, concrete floors, and computer floors. The maintenance of the floors shall include vacuuming, shampooing, damp mopping, monitoring and spot cleaning, machine scrubbing, stripping, and waxing. All floor care shall be done on the second shift, except for emergencies.

6.4.1 Vacuuming (Including Entrance Mats)

Requirement: The Contractor shall remove all loose dirt, soil, debris, and other foreign matter, including areas under desk, work stations, tables, chairs, radiators, and other furniture and equipment every Monday, Wednesday, and Friday at NASA Facility and Monday through Friday at the Navy Facility. Prior to vacuuming all debris such as paper clips, shavings, etc., shall be removed. Existing carpet type entrance mats shall also be vacuumed and moisture removed from underneath. All items moved to accomplish the task shall be returned to their original position.

Standard: Vacuuming shall be accomplished in accordance with the requirement above. At the end of the cleaning cycle, floors and mats shall be free of all visible dust, dirt, cobwebs, grit, lint, debris, and other foreign matter in corners, behind doors, etc.

6.4.2 Carpet Shampooing (including entrance mats)

Requirement: Carpets and mats shall be spot cleaned prior to shampooing to remove all spots, stains, tar, gum, etc., using chemical solvents to remove embedded soil, stains, dirt or other foreign matter every six months or as requested by CO for NASA and Navy facilities. Moveable furniture, desks, equipment, etc. shall be moved and the area shampooed every six months. All work shall be accomplished in accordance with carpet and cleaning material manufacturer recommendations. The Contractor shall repair/replace damaged areas at no additional cost to the Government resulting from improper cleaning techniques. If adjacent areas, walls, baseboards, doors, furniture becomes marred or splashed with carpet cleaning solution, those areas shall also be cleaned. The Contractor shall provide a Carpet Shampooing schedule to the CO. Adjustment to the cleaning schedule may be made with the approval of the CO. All items shall be returned to their original positions.

Standard: Carpets shall be shampooed in accordance with the above requirements and the approved schedule. At the end of the cleaning cycle, the carpeted areas shall be free of dirt, soil, stains, and foreign matter and have a bright uniform color. Carpets shall be free of any cleaning residue and removable stains and shall present a clean and uniform appearance.

6.4.3 Monitoring and Spot Cleaning Carpets

Requirement: The Contractor shall monitor and spot clean all floors every 30 days. The Contractor shall remove all gum, tar or other foreign matter affixed to the surface via suitable hand tools. While

monitoring, the Contractor shall inspect for and clean all spots as they are identified. Any carpet tears, raveling, etc., shall be reported to the CO. The Contractor shall provide a Monitoring and Spot Cleaning schedule to the CO.

Standard: All monitoring and spot cleaning shall be accomplished in accordance with the approved Schedule. After monitoring and spot cleaning, all floor surfaces shall be accomplished in accordance with the approved schedule and have a uniform appearance, free of streaks, spots, and cleaning residue.

6.4.4 Damp Mopping

Introduction: The Contractor shall use water or a water/detergent solution with a mop, mop bucket and wringer to remove dirt, soil, liquid or foreign matter from all hard and uncarpeted floor surfaces at WFF prior to damp mopping, floor areas shall be free of dirt and debris.

Requirement: The Contractor shall damp mop all hard and uncarpeted floor surfaces at WFF to remove dirt, soil, liquid or foreign matter which dusting/cleaning has not removed, soil, spots, smudges, and any other foreign matter. Prior to damp mopping, floor areas shall be free of dirt and debris.

Standard: At the end of the cleaning cycle, all uncarpeted and hard floors shall be clean and free of any soil, dirt, stains, water, cleaning solutions, or other foreign matter and have a uniform appearance with no streaks or swirl marks. No splash evidence on baseboards, furniture, or fixtures shall exist.

6.4.5 Machine Scrubbing

Requirement: The Contractor shall machine scrub hard floors and uncarpeted areas such as halls, shops, and lobbies. All hard floor areas shall be machined scrubbed to remove built-up dirt, soil, liquids or other foreign matter once per year. Moveable furniture, fixtures, and equipment shall be moved to complete scrubbing. When spray buffing, all moveable furniture, equipment, etc., shall be moved to complete task and floor surfaces shall be restored to a uniform luster. All items moved shall be returned to their original positions. If adjacent areas, walls, baseboards, doors, or furniture become marred or splashed with cleaning solutions, these areas shall also be cleaned. The Contractor shall provide a Machine Scrubbing schedule to the CO.

Standard: At the end of the cleaning cycle, all hard floor surfaces will be clean and free of any soil, dirt, stains, heel marks, and debris and have a high gloss appearance after properly cleaned. Baseboards, walls, furniture, doors, etc. shall be free of splash marks or mop streaks.

6.4.6 Stripping/Waxing/Sealing

Requirement: The Contractor shall:

a **Stripping** - Strip the finish from all vinyl, resilient, terrazzo, and tile floors, including stairs and landings once per year or as requested by CO. The stripping work shall be accomplished on the second shift. The Contractor shall remove all old finish or wax from floors using concentrated solution of a liquid cleaner or other manufacturer recommended techniques. Stripping of a floor includes corners and other areas that a scrubbing machine cannot reach. The Contractor shall remove wash water. The Contractor shall not splash or mar baseboards, walls, and furniture. The Contractor shall take up the cleaning solution and rinse the floor twice with clean water to remove all traces of cleaning solution. The Contractor shall not flood the floor with water, but instead use only enough water for a clean rise. The Contractor shall allow the floor to dry thoroughly after rinsing before applying the finish. The Contractor shall provide a Stripping, Waxing, and Sealing schedule to the CO. A finished floor is a floor adequately coated with an appropriate floor finish and is free of streaks, dust, dirt, and debris in all areas.

b. Finishing - After stripping the floor, apply floor finish in coats as recommended by the manufacturer, allowing sufficient drying time between each coat. The Contractor shall use a floor finish suitable for the floor surface being finished. The Contractor shall apply only the last coat up to, but not touching, the baseboard; the previous coats shall be applied up to three (3) inches from the baseboard. Should there be more than eight hours delay before applying finish, after the floor has been cleaned or between coats, the Contractor shall again clean the areas to remove surface dirt and scuff marks before applying the finish. A finished floor is a floor adequately coated with an appropriate floor finish and is free of streaks, dust, dirt, and debris in all areas

Standard: When properly stripped/finished, floors shall be free of all stains, deposits, scuff marks, and other foreign matter. The floor shall have a uniform, high-gloss finish from wall to wall, including corners.

6.4.7 Spray Buffing

Requirement: The Contractor shall buff and restore hard floors, terrazzo, and slate floor surfaces to a uniform luster once per week. Prior to buffing, the floor shall be free of all loose dirt and litter. Buffing operations shall begin immediately after wax is thoroughly dry. Moveable fixtures, furniture, and equipment shall be moved, and the areas shall be waxed and buffed. All items will be returned to their original position. If adjacent areas, walls, baseboard, doors, furniture, etc. become marred or splashed with stripping or wax solutions, those areas shall also be cleaned.

Standard: Spray Buffing shall be accomplished according to the requirements above. When completed, a spray cleaned and buffed floor shall have a uniform, high-gloss finish, free of scuff- and heel-marks, streaks, water, dust, dirt, and debris. The floor finish shall be uniform from wall to wall, including corners.

6.4.8 Elevated Floors (Computer Floors)

Requirement: The Contractor shall mechanically remove all dust, dirt, soil, debris and other foreign matter from all raised-floor surface areas once per week. When cleaning raised floors, the Contractor shall use equipment that does not cause static electricity build-up. Cleaning raised floors also includes cleaning raised floor tiles in place or by systematically replacing uncleaned tiles with clean tiles to allow cleaning to be done outside the building. The Contractor shall provide an approved schedule to the CO.

Standard: Elevated floor cleaning shall be accomplished in accordance with the approved schedule and requirements. At the end of the cleaning cycle, raised floor shall be free of all visible dust, dirt, soil, debris, and other foreign matter. All items moved to accomplish this task shall be returned to their original positions.

6.5 Trash

Requirement: The Contractor shall empty all waste containers including, but not limited to, loading dock trash bins, public area trash cans, and office trash cans every Monday, Wednesday, and Friday at the NASA facility, and dispose of at one of the disposal sites on the Main Base, Island, or Mainland. There are four central locations on the Main Base, one on the Island, and one on the Mainland. Trash removal for the Navy Facility shall be provided five days a week, Monday through Friday. All buildings shall be free of cardboard cartons and debris, such as empty boxes, packing materials, tape reels, and other disposable items. Care shall be used to remove only cartons, which are empty or clearly identified as trash. Waste containers shall be emptied, disinfected, and plastic liners replaced. Cardboard trash shall be broken down and put in the proper receptacles. All waste collected shall be secured in such a way as to prevent the adjacent areas from becoming littered. All spills resulting from leaking liners or receptacles shall be the responsibility of the Contractor.

Standard: Trash shall be removed and disposed of in accordance with the approved schedule and requirement listed above. At the end of the cleaning cycle, containers shall be free of all wastes and liners replaced.

6.6 Special Requirements

6.6.1 Navy Facilities

Introduction: The Contractor shall provide cleaning services and materials to the Surface Combat Systems Center (SCSC). These buildings include approximately 181,950 sq. feet. of office, shop, restrooms, hallways, entrances, and computer areas. Navy Housing Area, Q-1 through Q-28, and Q-31 through Q-53 shall be cleaned by the Contractor. Approximately 95% of the office area are carpeted.

6.6.2 Surface Combat Systems Center (SCSC)

Requirement: The Contractor shall provide cleaning services for the SCSC facilities, buildings R-23, R-25, R-30, Q-29, V-10, V-20, V-24, and U-90 between the hours 0600 and 1430 five days per week excluding holidays. The Contractor shall also clean the Navy Housing Area, Q-1 through Q-28, and Q-31 through Q-53. Approximately 95% of the office area are carpeted. Cleaning services shall include all trash removal as referenced in 6.5 (Trash) above. Floors shall be vacuumed, and all dust, dirt, and debris removed from special equipment, furniture tops, windowsills, corners and crevices. All computer room and resilient floor tiles shall be dust and damp-mopped daily. All items moved to accomplish task shall be returned to their original position. Carpets and mats shall be maintained in a clean condition.

Standard: At the end of the cleaning cycle, area shall be free of all dirt, soil, dust, cobwebs, and any other foreign materials.

6.6.3 Navy Housing (Change of Occupancy (IDIQ))

Requirement: The Contractor shall provide custodial services to clean the Navy Housing Areas, Q-1 through Q-28 and Q-31 through Q-53 at change of occupancy. The kitchen area floors shall be thoroughly scrubbed, and a coat of floor finish shall be applied and buffed. Kitchen appliance surfaces (inside and outside), including walls, grills, cupboards, counters, and exhaust fans shall also be scrubbed and polished thoroughly. The carpets shall be spot cleaned and shampooed in the living room and bedrooms. All tile floors shall be scrubbed and waxed, windows shall be washed inside and outside, and walls and blinds shall be scrubbed. The deck and patio areas shall be swept thoroughly and scrubbed clean. All Rest rooms shall be cleaned in accordance with requirements set forth in Section 6.2 (Restrooms).

Standard: At the end of the cleaning cycle, houses shall be free of all dirt, debris, dust, cobwebs, and wax build-up. Rest room fixtures, partitions, walls, and floors shall be free of stains and odors. Waste containers will be cleaned and disinfected.

6.6.4 Window/Glass

Requirement: The Contractor shall thoroughly and simultaneously clean all exterior and interior window surfaces, window frames, sills, and sashes once per year at the NASA and Navy Facilities. All glass surfaces shall be cleaned and free of all streaks, stains, and shall be wiped dry. The Contractor shall not use ammonia or products containing ammonia to clean the glass. All paint, putty, film, and foreign matter found on surfaces shall be removed. Where insect screens exist, screens and screen frames shall be brushed free of dust, dirt, cobwebs, lint, and other debris. Brushing shall be accomplished outside of the building at a location that does not conflict with other activities or cause damage to screens. Screens that are removed shall be replaced in their original position. The Contractor shall submit a Window/Glass cleaning plan to CO.

Standard: When properly cleaned, all surfaces will be free of streak, film, deposits, and stains, and have a uniformly bright appearance and adjacent surfaces have been wiped clean. All items moved to accomplish the task shall be returned to their original positions.

6.7 Dormitories

Introduction: Wallops Flights Facility operates the Management Education Center, which require housing for trainees, including management and other personnel from various NASA Centers.

Requirement: The Contractor shall provide custodial services to the Dormitory Facilities, Buildings F-4 and F-5, 5 days per week, Monday through Friday, between the hours of 0600 and 1430. These buildings consist of 84 rooms and 74 rest rooms totaling approximately 14,000 sq. ft. Cleaning services shall include all trash removal, floors vacuumed (during and following occupancy), removal of dust, dirt, or debris from special equipment, furniture tops, all light fixtures, shades, doors, trim, walls, frames, and windowsills. Corners and crevices shall be dusted daily and free of all dust or dirt. All rest rooms shall be accomplished as set forth in Section 6.2. All resilient floor tiles shall be dusted and damp-mopped daily. All items moved to accomplish task shall be returned to their original position. The carpets shall be shampooed every 6 months.

Standard: All custodial services shall be provided in accordance with the requirements above. At the end of the cleaning cycle, area shall be free of all dirt, soil, dust, cobwebs, and any other foreign materials.

6.8 Cafeteria/Exchange/Williamsburg Room/Training Room, E-2

Introduction: The Wallops Employee Morale Activity (WEMA) provides Cafeteria Services for the Facility.

Requirement: The Contractor shall:

a. Provide cleaning services for the NASA Cafeteria and: Williamsburg Room, Building E-2, five days per week, Monday through Friday, between the hours 2030 and 2230. This requirement shall not include cleaning any of the cooking areas behind the serving line or any of the cooking equipment. The cleaning services shall include floor sweeping, dust- and damp-mopping, carpet and rug vacuuming, damp-wiping furniture tops, and cleaning under tables. Entrance and rear portico shall be swept daily and free of all dirt, soil, debris, and other foreign matter. All interior and exterior glass shall be damp-wiped weekly. Rest rooms shall be cleaned in accordance with Section 6.2 (Restrooms).

b. Provide cleaning services for the Training Room, (S-165) and the NASA Exchange in Building E-2, every other day. The cleaning services shall include floor sweeping, dust and damp mopping, carpet and rug vacuuming, damp-wiping furniture tops, and cleaning under tables.

Standard: At the end of the cleaning cycle, the Cafeteria/Exchange/Williamsburg Room/Training Room areas shall be free of all dirt, soil, dust, cobwebs, and any other foreign materials. Interior and exterior glass shall be left free of streaks and stains. All items moved to accomplish cleaning services shall be returned to their original location.

6.9 Management Education Center

Introduction: WFF operates the Management Education Center, which provides training facilities to Management, Employees, Navy, and Contract Personnel.

Requirement: The Contractor shall provide custodial services to the Management Education Center, Building E-104, five days per week, Monday through Friday, between the hours of 0600 and 1430 during non-class occupied times. The building consist of 38 individual rooms and 6 rest rooms totaling approximately 13,750 sq. ft. Custodial services shall include: trash removal, floor vacuuming, and dust, dirt, or debris removal from special equipment, furniture tops, and windowsills. Corners and crevices shall

be free of all dust or dirt. All computer room and resilient floor tile shall be dust- and damp-mopped. All rest rooms shall be cleaned in accordance with requirements in Section 6.2 (Restrooms). All items moved to accomplish task shall be returned to their original position.

Standard: When properly cleaned, the area shall be free of all dirt, soil, dust, cobwebs, and any other foreign materials.

6.10 Visitor Information Center (VIC)

Introduction: The Visitor Information Center is used by NASA and the public and houses space hardware and exhibits.

Requirement: The Contractor shall provide custodial services to the Visitor Information Center Buildings, J-17, J-20 and J-93, between the hours of 0700 and 1000 and between 1300 and 1430, Thursday through Monday from September 4 through June 25; and 7 days per week from June 26 through September 3. The Contractor shall furnish these services on three (3) Government Holidays per year, Memorial Day, July 4, and Labor Day. Cleaning services shall include: trash removal, floor vacuuming, and dust, dirt, or debris removal from special equipment, furniture tops, displays, and windowsills. Corners and crevices shall be free of all dust or dirt. All resilient floor tiles shall be dust- and damp-mopped. Rest room shall be cleaned in accordance with requirements in Section 6.2. All items moved to accomplish task shall be returned to their original position.

Standard: At the end of the cleaning cycle, the area shall be free of all dirt, soil, dust, cobwebs, and any other foreign materials.

6.11 Health Unit

Introduction: WFF 's Health Unit provides health services to the all WFF and Navy Employees

Requirement: The Contractor shall provide custodial services for the WFF NASA and Navy Health Unit, Building F-160, West Wing, five days per week, Monday through Friday, between the hours of 0600 and 1430. Cleaning services shall include all trash removal, floor vacuuming, and dust, dirt, or debris removal from special equipment, furniture tops, and windowsills. All corners and crevices shall be free of all dust or dirt. All hard floors, hallways, waiting rooms, surgical rooms, nurses stations, examination rooms, and laboratories shall be wet -mopped. All rest rooms shall be cleaned in accordance with Section 6.2 (Restrooms). All items moved to accomplish task shall be returned to their original position.

Standard: Health Unit facility shall be cleaned in accordance with requirements and approved schedule. At the end of the cleaning cycle, the area shall be free of all dirt, soil, dust, cobwebs, and any other foreign materials.

6.12 Telecommunication Facility Building

Requirement: The Contractor shall provide custodial services to the Telecommunication Facility, Building N-162 between the hours of 1000 and 1300, Monday through Friday, and between the hours of 1430 and 1530, seven (7) days per week including holidays. Cleaning services shall include: all trash removal, floor vacuuming, and dust, dirt, or debris removal from special equipment, furniture tops, and windowsills. Corners and crevices shall be free of all dust or dirt. All rest rooms shall be cleaned in accordance with requirements in Section 6.2 (Restrooms). All items moved to accomplish task shall be returned to their original position.

Standard: Custodial services shall be accomplished in accordance with the requirements above. At the end of the cleaning cycle, the area shall be free of all dirt, soil, dust, cobwebs, and any other foreign materials.

6.13 Miscellaneous Cleaning

6.13.1 Drinking Fountains

Requirement: The Contractor shall remove all soil, stains, liquids, trash, scale, rust, and other foreign matter from drinking fountains on a daily basis. An approved germicidal detergent shall be used when cleaning drinking fountains. All porcelain and polished surfaces, including the orifices and drains shall be disinfected. Any leaks or inoperable fountains shall be reported to the CO.

Standard: At the end of the cleaning cycle, drinking fountains shall be free of all dirt, stains, soil, and will have a non-abrasive high gloss appearance. Metal surfaces will be clean and bright, and free of deposits or tarnish.

6.13.2 Elevators

Requirement: The Contractor shall remove all dirt, soil, stains, liquid, trash, refuse, scale, and any other foreign matter from elevator cabs, exterior doors, panels, and door tracks twice per week. Any adjacent areas which becomes contaminated with foreign material including dust, dirt, or cleaning product residue, shall also be cleaned.

Standard: At the end of the cleaning cycle, the area shall be free of all dirt, soil, dust, cobwebs, and any other foreign matter and present a clean appearance.

6.13.3 Blinds

Requirement: The Contractor shall remove all laden dirt, soil, lint, stains, or other foreign matter from blinds monthly. Cleaning blinds shall be accomplished via dusting or vacuuming each louver and the frame.

Standard: At the end of the cleaning cycle, the area shall be free of all dirt, soil, dust, cobwebs, and any other foreign materials. Blinds, louvers, cords, hardware, and surrounding surfaces will present a clean, uniform appearance free of soil, marks, and other foreign matter.

6.13.4 Glass

Requirement: The Contractor shall monthly clean, all interior and exterior surface of all glass in entry ways bookcases, cabinets, and showcases thoroughly. The Contractor shall not use ammonia or products containing ammonia to clean the glass. All glass surfaces shall be clean and left free of streaks and stains, and all adjacent surfaces wiped dry. All paint, putty, film, and foreign matter found on glass surfaces shall be removed.

Standard: When properly cleaned, all surfaces will be free of streak, film, deposits, and stains, and have a uniformly bright appearance and adjacent surfaces have been wiped clean. All items moved to accomplish the task shall be returned to their original positions.

6.13.5 Convenience Sinks in Office/Shop Mess Areas

Requirement: The Contractor shall thoroughly clean all washbowls, convenience and shop sinks once per week. This includes cleaning countertops. The Contractor shall remove grease and other dirt with an all-purpose synthetic detergent or soap solution. The Contractor shall remove stains with scouring powder. The Contractor shall clean chromium-plated hardware with care so that the finish is not damaged.

Standard: When properly cleaned, sinks and washbowls shall be free of all dirt, grease, stains, film, or odor.

6.13.6 Chalkboards and White Boards

Requirement: The Contractor shall wipe all chalk-and white boards, trays, and remove dust from erasers on a weekly basis. The Contractor shall only clean chalk and white boards when the boards are free of all hand written material.

Standard: When properly cleaned, a chalk board and white board shall be free of all dirt, dust, film, chalk, and other debris.

6.14 Solid Waste

Introduction: WFF provides solid waste removal for the NASA facility, Navy, and National Oceanographic and Atmospheric Administration (NOAA) Command and Data Acquisition Station. The services for NASA and Navy facilities will consist of removal of Solid Waste from the Main Base, Mainland, and Wallops Island.

Requirement: The Contractor shall:

- a. Provide labor and equipment for the removal of solid waste from WFF, Navy, and National Oceanographic and Atmospheric Administration Command and Data Acquisition Station.
- b. All container locations shall be fully accessible for the use of standard equipment utilized by the Contractor in its collection operation.
- c. The Contractor shall dispose of all waste at the local County Landfill in Atlantic, Virginia.
- d. The Contractor shall ensure that waste receptacles containing liquids do not spill onto ground surfaces. If spills occur, the Contractor shall be responsible for cleaning up spills resulting from leakage. The Contractor shall pickup all trash that is spilled during collection operation within a radius of 20 feet.
- e. All containers must be approved by the CO and must be repaired or replaced as needed. Repair or replacement will be required if container lids are damaged, excessive rust is present, or holes are found in the containers. Containers must be kept painted with a color approved by the CO and shall be positioned at designated locations.
- f. Containers shall consist of the following sizes: 90-gallon capacity, 4, 6, 30, and 40 cubic yard capacities. In locations where there is more than one container specified, larger units of equal capacity may be submitted with the approval of the CO. At the option of the Government, containers may be added or deleted at a pre-determined cost or credit to the Government.
- g. All containers must be emptied between 0800 and 1630, Monday through Friday. Emergency dumps shall be completed within 24 hours of notification by the CO. The Contractor shall submit a schedule for dumping containers to the CO.
- h. Be responsible for damage to Government property resulting from emptying solid waste containers at WFF.
- i. Provide equipment and labor to accomplish work specified as follows:
 - (1) Five (5), 40 cubic yard solid waste containers with A-roof and 3 doors. All containers shall be emptied weekly.

- (2) One (1), 40 cubic yard container with electric auger for use with Model 22 paper digester. Container shall be emptied monthly.
- (3) Three (3), 30 cubic yard open top roll-off containers. Containers shall be emptied twice monthly.
- (4) One (1), 30 cubic yard recycling capacity type container with top and divider. Container shall be emptied monthly.
- (5) Five (5), 6 cubic yard solid waste containers. All containers shall be emptied twice weekly.
- (6) Two (2), 4 cubic yard containers. All containers shall be emptied twice weekly.
- (7) Fifty-four (54), 90 gallon containers with roll-a-carts. All containers shall be emptied once monthly.
- (8) Provide bulk pick-up of trash unsuitable for placement in 90 gallon containers. This service shall be provided to the 48 units of the Navy housing area on a quarterly basis.
- (9) Provide 12 each emergency dumps for 30 and 40 cubic yard roll-off containers yearly.

Container Type, Location, Size, and Number of units are as follows:

- (1) 40 Cubic Yard with A-roof and 3 doors
 - Bldg. F-16 (Northeast side) – 1 each
 - Bldg. E-2 (Rear Café.) – 1 each
 - Bldg. E-2 (East end) – 1 each
 - Bldg. N-162 (Northeast corner) – 1 each
 - Bldg. X-35 (South side/Island) – 1 each
- (2) 40 Cubic Yard with Elec. Auger for use with Model 22 Paper Digester
 - Bldg. V-10 (Parking Lot/Island) – 1 each
- (3) 30 Cubic Yard Open Top (Construction Type)
 - Bldg. N-222 (Rear of Bldg.) – 1 each
 - Bldg. V-10 (Navy Parking Lot/Island) – 1 each
 - Bldg. V-20 (Navy Parking Lot/Island) – 1 each
- (4) 30 Cubic Yard Recycling type with Top and Divider
 - Bldg. E-7 (Rear) – 1 each
- (5) 6 Yard Containers with Lids
 - NOAA Facility (Parking Lot) – 1 each
 - Bldg. R-30 (Navy Driveway) – 1 each
 - Bldg. R-20 (Navy CDF) – 1 each
 - Bldg. F-3 (Rear) – 2 each
- (6) 4 Yard Containers with Lids
 - Bldg. U-40 (Parking Lot/Mainland) – 1 each
 - Bldg. U-70 (Southwest Corner/Mainland) – 1 each
- (7) 90-Gallon Size (Roll-a-Cart)
 - Bldg. J-8 (Rear/VIC) – 2 each
 - Bldg. J-20 (VIC) – 4 each

(8) (IDIQ)
Navy Housing (House Nos. 101-114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140,
and 142 – (28 each) and 201-217, 219, 221, and 223 (20 each) total 48

Standard: Waste shall be removed to ensure containers do not overflow. After collection, the waste receptacles shall be free of all waste. Areas surrounding all waste collection areas shall be free from litter, stains, odors, debris, and any other foreign matter. Waste shall be removed from facilities and promptly transported to specified location for pick up.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE 1 OF 4 PAGES
2. AMENDMENT/MODIFICATION NO. 118	3. EFFECTIVE DATE See Block 16C.	4. REQUISITION/PURCHASE REQ. NO. See Block 14	5. PROJECT NO. (if applicable) N/A	
6. ISSUED BY National Aeronautics and Space Administration Goddard Space Flight Center Wallops Flight Facility Attn: Kimberley Sweep/Code 210.W/757-824-2363 Wallops Island, VA 23337		7. ADMINISTERED BY (if other than Item 6) CODE		
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP Code) The Cube Corporation 45665 Willow Pond Plaza Sterling, VA 20164			(4)	9A. AMENDMENT OF SOLICITATION NO.
				9B. DATED (SEE ITEM 11)
			X	10A. MODIFICATION OF CONTRACT/ORDER NO. NAS5-01080
				10B. DATED (SEE ITEM 13) July 26, 2001
CODE		FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

BNC: GFE

PPC: BX

TOTAL ESTIMATED COST: \$130,172,332.00

TOTAL CONTRACT FUNDING: \$85,729,006.58

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

(4)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER Specify type of modification and authority) This unilateral modification is issued pursuant to 52.232-22 Limitation of Funds (APR 1984)

E. IMPORTANT: Contractor ☒ is not, ☐ is required to sign this document and return ____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

1. The purpose of this modification is to change funding for the subject contract.

(Continued on Page 2)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Pamela J. Taylor	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY ____ Original Signed ____ (Signature of Contracting Officer)	16C. DATE SIGNED Feb 3, 2005

2. Under Clause B.9 CONTRACT FUNDING (NFS 1852.232-81) revise contract funding as follows:

BASELINE:

a. The total allotted for payment of cost is revised as follows:

FROM	BY	TO
\$48,207,716.78	\$2,126,043.00	\$50,333,759.78

b. The total amount allotted for fee is revised as follows:

FROM	BY	TO
\$2,780,474.44	\$111,897.00	\$2,892,371.44

IDIQ:

a. The total allotted for payment of cost is revised as follows:

FROM	BY	TO
\$29,799,358.42	\$927,361.50	\$30,726,719.92

b. The total amount allotted for fee is revised as follows:

FROM	BY	TO
\$1,727,346.94	\$48,808.50	\$1,776,155.44

The total amount allotted for payment of cost and fee is as follows:

FROM	BY	TO
\$82,514,896.58	\$3,214,110.00	\$85,729,006.58

The total amount of funds obligated per this modification is: \$3,214,110.00.

TOTAL CHANGE IN CONTRACT FUNDING: \$3,214,110.00.

The period of performance covered by the obligation of allotted funding is extended to April 25, 2005.

3. ACCOUNTING AND APPROPRIATION DATA

OBLIGATE:			
BASELINE:	PR NUMBER	AMOUNT	SOW
	4200097188	\$ 148,800.00	12
	4200097368	\$ 416,000.00	3
	4200097368	\$ 35,000.00	6
	4200097955	\$ 630,000.00	11
	4200098764	\$ 90,000.00	7
	4200098764	\$ 270,000.00	8
	4200098764	\$ 200,000.00	9
	4200098764	\$ 400,000.00	10
	4200098764	\$ 4,000.00	8
	4200098764	\$ 2,000.00	3
	4200098885	\$ 3,300.00	7
	4200098885	\$ 38,000.00	3
	4200099241	\$ 840.00	7
TOTAL BASELINE		\$2,237,940.00	
IDIQ:	PR NUMBER	AMOUNT	SOW/T0
	4200092745	\$ 17,000.00	1-00-2004
	4200092745	\$ 3,000.00	4-39-2005
	4200092745	\$ 5,000.00	4-38-2005
	4200095982	\$ 10,000.00	15-14-2005
	4200097224	\$ 10,000.00	4-67-2005
	4200097368	\$ 40,000.00	5-15-2005
	4200097368	\$ 5,300.00	6-7-2005
	4200097368	\$ 20,000.00	15-11-2005
	4200097368	\$ 20,000.00	5-16-2005
	4200097842	\$ 50,000.00	4-70-2005
	4200097911	\$ 38,322.00	14-9-2005
	4200097911	\$ 11,719.00	14-1-2004
	4200098729	\$ 75,000.00	1-00-2004
	4200098764	\$ 300,000.00	1-4-2005
	4200098764	\$ 30,000.00	8-5-2005
	4200098764	\$ 54,000.00	1-00-2004
	4200098885	\$ 7,000.00	3-3-2005
	4200098885	\$ 4,000.00	4-32-2005
	4200098885	\$ 8,334.00	5-3-2005

IDIQ Continued

	4200098885	\$ 2,000.00	6-5-2005
	4200098885	\$ 20,000.00	14-17-2005
	4200099241	\$ 23,520.00	14-18-2005
	4200099241	\$ 20,000.00	2-12-2005
	4200099241	\$ 56,000.00	4-31-2005
	4200099241	\$ 123,627.00	10-6-2005
	4200099241	\$ 15,000.00	4-54-2005
	4200099241	\$ 7,348.00	6-6-2005
TOTAL IDIQ		\$ 976,170.00	
TOTAL OBLIGATED		\$3,214,110.00	

4. No other changes to the subject contract are made by issuance of this modification.

(End of Modification)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE	PAGE 1 OF 3 PAGES
2. AMENDMENT/MODIFICATION NO. 119		3. EFFECTIVE DATE See Block 16C.		4. REQUISITION/PURCHASE REQ. NO. See Block 14	
5. PROJECT NO. (If applicable) N/A		6. ISSUED BY National Aeronautics and Space Administration Goddard Space Flight Center Wallops Flight Facility Attn: Kimberley Sweep/Code 210.W/757-824-2363 Wallops Island, VA 23337			
7. ADMINISTERED BY (If other than item 6)		CODE			
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP Code) The Cube Corporation 45665 Willow Pond Plaza Sterling, VA 20164				(4) 9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
				10A. MODIFICATION OF CONTRACT/ORDER NO. NAS5-01080	
				10B. DATED (SEE ITEM 13) July 26, 2001	
CODE		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

BNC: GFE

PPC: BX

TOTAL ESTIMATED COST: \$130,172,332.00

TOTAL CONTRACT FUNDING: \$86,266,741.61

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

(4)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER Specify type of modification and authority) This unilateral modification is issued pursuant to 52.232-22 Limitation of Funds (APR 1984)

E. IMPORTANT: Contractor ☒ is not, ☐ is required to sign this document and return ____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

1. The purpose of this modification is to correct an administrative error set forth in Modification 118 and to change funding for the subject contract.

(Continued on Page 2)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Pamela J. Taylor	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED Feb 15, 2005
(Signature of person authorized to sign)		BY <u>Original Signed</u> (Signature of Contracting Officer)	

2. Modification 118, Block 14.3, Accounting and Appropriation Data, is hereby changed to correct the task order number allocated for PR 4200098764, in the amount of \$300,000.00. The task order number allocated for PR 4200098764 is changed from "1-4-2005" to "10-4-2005".

3. Under Clause B.9 CONTRACT FUNDING (NFS 1852.232-81) revise contract funding as follows:

BASELINE:

a. The total allotted for payment of cost is revised as follows:

FROM	BY	TO
\$50,333,759.78	\$338,010.00	\$50,671,769.78

b. The total amount allotted for fee is revised as follows:

FROM	BY	TO
\$2,892,371.44	\$17,790.00	\$2,910,161.44

IDIQ:

a. The total allotted for payment of cost is revised as follows:

FROM	BY	TO
\$30,726,719.92	\$172,838.28	\$30,899,558.20

b. The total amount allotted for fee is revised as follows:

FROM	BY	TO
\$1,776,155.44	\$9,096.75	\$1,785,252.19

The total amount allotted for payment of cost and fee is as follows:

FROM	BY	TO
\$85,729,006.58	\$537,735.03	\$86,266,741.61

The total amount of funds obligated per this modification is: \$538,176.00.

The total amount of funds deobligated per this modification is: \$440.97.

TOTAL CHANGE IN CONTRACT FUNDING: \$537,735.03.

The period of performance covered by the obligation of allotted funding is extended to May 2, 2005.

4. ACCOUNTING AND APPROPRIATION DATA

OBLIGATE:			
BASELINE:	PR NUMBER	AMOUNT	SOW
	4200099019	\$ 55,800.00	2
	4200099698	\$ 300,000.00	15
TOTAL BASELINE		\$ 355,800.00	
IDIQ:	PR NUMBER	AMOUNT	SOW/T0
	4200099019	\$ 2,600.00	2-29-2004
	4200099019	\$ 7,000.00	2-26-2003
	4200099019	\$ 16,663.00	2-13-2005
	4200099019	\$ 9,000.00	2-15-2005
	4200099019	\$ 7,729.00	2-8-2005
	4200099019	\$ 10,000.00	4-43-2005
	4200099019	\$ 150.00	15-12-2005
	4200099019	\$ 20,000.00	4-42-2005
	4200099019	\$ 70,000.00	2-14-2005
	4200099485	\$ 8,000.00	1-2-2005
	4200099485	\$ 2,496.00	1-3-2005
	4200099485	\$ 3,813.00	1-3-2005
	4200099485	\$ 24,925.00	1-3-2005
TOTAL IDIQ		\$182,376.00	
TOTAL OBLIGATED		\$538,176.00	
DEOBLIGATE:			
IDIQ:	PR NUMBER	AMOUNT	SOW/T0
	200-50976	\$ (440.97)	5-5-2001
TOTAL DEOBLIGATED - IDIQ		\$ (440.97)	

5. No other changes to the subject contract are made by issuance of this modification.

(End of Modification)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE	PAGE 1 OF 3 PAGES
2. AMENDMENT/MODIFICATION NO. 120	3. EFFECTIVE DATE See Block 16C.	4. REQUISITION/PURCHASE REQ. NO. See Block 14	5. PROJECT NO. (If applicable) N/A		
6. ISSUED BY National Aeronautics and Space Administration Goddard Space Flight Center Wallops Flight Facility Attn: Kimberley Sweep/Code 210.W/757-824-2363 Wallops Island, VA 23337		7. ADMINISTERED BY (If other than item 6)		CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) The Cube Corporation 45665 Willow Pond Plaza Sterling, VA 20164				(4)	9A. AMENDMENT OF SOLICITATION NO.
					9B. DATED (SEE ITEM 11)
				X	10A. MODIFICATION OF CONTRACT/ORDER NO. NAS5-01080
					10B. DATED (SEE ITEM 13) July 26, 2001
CODE		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

BNC: GFE

PPC: BX

TOTAL ESTIMATED COST: \$130,172,332.00

TOTAL CONTRACT FUNDING: \$87,033,914.21

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(4)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER Specify type of modification and authority) This unilateral modification is issued pursuant to 52.232-22 Limitation of Funds (APR 1984)

E. IMPORTANT: Contractor ☒ is not, ☐ is required to sign this document and return ____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

1. The purpose of this modification is to correct an administrative error set forth in Modifications 113 and 118, and to change funding for the subject contract.

(Continued on Page 2)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Pamela J. Taylor	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY Original Signed (Signature of Contracting Officer)	16C. DATE SIGNED March 3, 2005

2. Modification 113, Block 14.3, Accounting and Appropriation Data, is hereby changed to correct the task order numbers allocated for PR 4200088599. The task order number allocated for both line items for PR 4200088599 is changed from "4-39-2004" to "4-39-2005".

3. Modification 118, Block 14.3, Accounting and Appropriation Data, is hereby changed to correct the task order number allocated for PR 4200092745, in the amount of \$17,000.00. The task order number allocated for PR 4200092745, in the amount of \$17,000.00, is hereby deleted in its entirety and replaced with the following:

PR NUMBER	AMOUNT	SOW/T0
4200092745	\$ 7,000.00	1-00-2004
4200092745	\$ 10,000.00	4-68-2005

4. Under Clause B.9 CONTRACT FUNDING (NFS 1852.232-81) revise contract funding as follows:

BASELINE:

a. The total allotted for payment of cost is revised as follows:

FROM	BY	TO
\$50,671,769.78	\$106,020.00	\$50,777,789.78

b. The total amount allotted for fee is revised as follows:

FROM	BY	TO
\$2,910,161.44	\$5,580.00	\$2,915,741.44

IDIQ:

a. The total allotted for payment of cost is revised as follows:

FROM	BY	TO
\$30,899,558.20	\$622,793.97	\$31,522,352.17

b. The total amount allotted for fee is revised as follows:

FROM	BY	TO
\$1,785,252.19	\$32,778.63	\$1,818,030.82

The total amount allotted for payment of cost and fee is as follows:

FROM	BY	TO
\$86,266,741.61	\$767,172.60	\$87,033,914.21

The total amount of funds obligated per this modification is: \$798,989.60.
The total amount of funds deobligated per this modification is: \$31,817.00.

TOTAL CHANGE IN CONTRACT FUNDING: \$767,172.60.

The period of performance covered by the obligation of allotted funding is extended to May 12, 2005.

5. ACCOUNTING AND APPROPRIATION DATA

OBLIGATE:			
BASELINE:	PR NUMBER	AMOUNT	SOW
	4200101332	\$ 111,600.00	2
TOTAL BASELINE		\$ 111,600.00	
IDIQ:	PR NUMBER	AMOUNT	SOW/T0
	4200100176	\$ 3,000.00	4-73-2005
	4200101332	\$ 276,631.15	2-4-2005
	4200101332	\$ 41,638.45	2-5-2005
	4200101332	\$ 40,000.00	4-42-2005
	4200101332	\$ 25,000.00	4-43-2005
	4200101332	\$ 1,120.00	2-17-2005
	4200101332	\$ 300,000.00	1-00-2004
TOTAL IDIQ		\$ 687,389.60	
TOTAL OBLIGATED		\$ 798,989.60	
DEOBLIGATE:			
IDIQ:	PR NUMBER	AMOUNT	SOW/T0
	4200078491	\$(31,817.00)	1-00-2004
TOTAL DEOBLIGATED - IDIQ		\$(31,817.00)	

6. No other changes to the subject contract are made by issuance of this modification.

(End of Modification)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE	PAGE 1 OF 4 PAGES
2. AMENDMENT/MODIFICATION NO. 121		3. EFFECTIVE DATE See Block 16C.		4. REQUISITION/PURCHASE REQ. NO. See Block 14	
5. PROJECT NO. (If applicable) N/A					
6. ISSUED BY National Aeronautics and Space Administration Goddard Space Flight Center Wallops Flight Facility Attn: Kimberley Sweep/Code 210.W/757-824-2363 Wallops Island, VA 23337		7. ADMINISTERED BY (If other than Item 6)		CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP Code) The Cube Corporation 45665 Willow Pond Plaza Sterling, VA 20164				(4)	
				9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
				10A. MODIFICATION OF CONTRACT/ORDER NO. NAS5-01080	
				10B. DATED (SEE ITEM 13) July 26, 2001	
CODE		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

BNC: GFE

PPC: BX

TOTAL ESTIMATED COST: \$130,172,332.00

TOTAL CONTRACT FUNDING: \$88,920,146.21

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

(4)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER Specify type of modification and authority) This unilateral modification is issued pursuant to 52.232-22 Limitation of Funds (APR 1984)

E. IMPORTANT: Contractor ☒ is not, ☐ is required to sign this document and return ____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)

1. The purpose of this modification is to change funding for the subject contract.

(Continued on Page 2)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Pamela J. Taylor	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY Original Signed (Signature of Contracting Officer)	16C. DATE SIGNED MAR 15, 2005

2. Under Clause B.9 CONTRACT FUNDING (NFS 1852.232-81) revise contract funding as follows:

BASELINE:

a. The total allotted for payment of cost is revised as follows:

FROM	BY	TO
\$50,777,789.78	\$1,066,470.00	\$51,844,259.78

b. The total amount allotted for fee is revised as follows:

FROM	BY	TO
\$2,915,741.44	\$56,130.00	\$2,971,871.44

IDIQ:

a. The total allotted for payment of cost is revised as follows:

FROM	BY	TO
\$31,522,352.17	\$725,450.40	\$32,247,802.57

b. The total amount allotted for fee is revised as follows:

FROM	BY	TO
\$1,818,030.82	\$38,181.60	\$1,856,212.42

The total amount allotted for payment of cost and fee is as follows:

FROM	BY	TO
\$87,033,914.21	\$1,886,232.00	\$88,920,146.21

The total amount of funds obligated per this modification is: \$1,886,232.00.

TOTAL CHANGE IN CONTRACT FUNDING: \$1,886,232.00.

The period of performance covered by the obligation of allotted funding is extended to June 8, 2005.

3. ACCOUNTING AND APPROPRIATION DATA

OBLIGATE:			
BASELINE:	PR NUMBER	AMOUNT	SOW
	4200101818	\$ 371,000.00	3
	4200101818	\$ 80,000.00	6
	4200104043	\$ 1,200.00	7
	4200105205	\$ 5,000.00	7
	4200105205	\$ 2,500.00	7
	4200105205	\$ 6,000.00	7
	4200105205	\$ 70,000.00	3
	4200105205	\$ 4,800.00	2
	4200105205	\$ 173,000.00	3
	4200105205	\$ 34,400.00	14
	4200105205	\$ 81,000.00	15
	4200105205	\$ 23,250.00	16
	4200105205	\$ 46,950.00	3
	4200105205	\$ 94,950.00	10
	4200105205	\$ 15,000.00	14
	4200105205	\$ 34,000.00	15
	4200105205	\$ 13,000.00	16
	4200105205	\$ 6,000.00	6
	4200105205	\$ 40,250.00	6
	4200105205	\$ 8,000.00	6
	4200105205	\$ 1,400.00	9
	4200105205	\$ 4,100.00	12
	4200105205	\$ 6,800.00	12
TOTAL BASELINE		\$1,122,600.00	

IDIQ:	PR NUMBER	AMOUNT	SOW/T0
	4200101818	\$ 1,851.00	4-24-2005
	4200101818	\$ 70,000.00	4-61-2005
	4200101818	\$ 40,000.00	5-16-2005
	4200101818	\$ 30,000.00	5-15-2005
	4200104043	\$ 15,900.00	5-11-2005
	4200104043	\$ 4,700.00	5-13-2005
	4200104043	\$ 6,000.00	1-00-2004
	4200104043	\$ 271,914.00	10-01-2005
	4200104328	\$ 1,611.00	15-15-2005
	4200105205	\$ 19,000.00	3-3-2005
	4200105205	\$ 20,000.00	3-4-2005
	4200105205	\$ 4,000.00	4-32-2005
	4200105205	\$ 15,000.00	4-54-2005
	4200105205	\$ 17,484.00	4-33-2005
	4200105205	\$ 45,000.00	2-1-2005
	4200105205	\$ 22,500.00	4-1-2005
	4200105205	\$ 9,964.00	14-15-2005
	4200105205	\$ 8,508.00	14-16-2005
	4200105205	\$ 22,101.00	15-8-2005
	4200105205	\$ 10,670.00	15-9-2005
	4200105205	\$ 11,029.00	15-10-2005
	4200105205	\$ 13,000.00	2-2-2005
	4200105205	\$ 12,000.00	4-2-2005
	4200105205	\$ 5,235.00	14-3-2005
	4200105205	\$ 4,765.00	14-4-2005
	4200105205	\$ 22,000.00	15-4-2005
	4200105205	\$ 10,000.00	15-5-2005
	4200105205	\$ 14,000.00	15-6-2005
	4200105205	\$ 10,000.00	5-3-2005
	4200105205	\$ 6,000.00	6-10-2005
	4200105205	\$ 1,400.00	6-1-2005
	4200105205	\$ 10,000.00	5-4-2005
	4200105205	\$ 5,000.00	5-17-2005
	4200105205	\$ 3,000.00	5-5-2005
TOTAL IDIQ		\$ 763,632.00	
TOTAL OBLIGATED		\$1,886,232.00	

4. No other changes to the subject contract are made by issuance of this modification.

(End of Modification)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE	PAGE 1 OF 2 PAGES
2. AMENDMENT/MODIFICATION NO. 122		3. EFFECTIVE DATE See Block 16C.		4. REQUISITION/PURCHASE REQ. NO. See Block 14	
5. PROJECT NO. (If applicable) N/A					
6. ISSUED BY National Aeronautics and Space Administration Goddard Space Flight Center Wallops Flight Facility Attn: Kimberley Sweep/Code 210.W/757-824-2363 Wallops Island, VA 23337		7. ADMINISTERED BY (If other than Item 6) CODE 210.W			
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP Code) The Cube Corporation 45665 Willow Pond Plaza Sterling, VA 20164				(4)	9A. AMENDMENT OF SOLICITATION NO.
					9B. DATED (SEE ITEM 11)
				X	10A. MODIFICATION OF CONTRACT/ORDER NO. NAS5-01080
					10B. DATED (SEE ITEM 13) July 26, 2001
CODE		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

- ☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.
- Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
- (a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) **BNC: GFE** **PPC: BX**
TOTAL ESTIMATED COST: \$151,011,066.00 **TOTAL CONTRACT FUNDING: \$87,033,914.21**

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(4)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.243-2 Changes - Cost Reimbursement (Aug 1987) - Alt II (Apr 1984)
	D. OTHER Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 2 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is threefold:

- 1) to correct the amount allotted to the Total Estimated Cost;
- 2) to update NASA FAR Supplement Clause 1852.215-84; and
- 3) to revise the Statement of Work (SOW), SOW 1, for WICC.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Pamela J. Taylor	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED 03/23/2005
(Signature of person authorized to sign)		BY <u>Original Signed</u> (Signature of Contracting Officer)	

A. The Total Estimated Cost for Year 1 through Award Term 2 is hereby changed to read as follows. This correction is needed due to an administrative error when calculating the amounts per year.

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
Total Estimated Cost	\$130,172,332	\$20,838,734	\$151,011,066

B. Section I, Paragraph I.1, NASA FAR Supplement Clause 1852.215-84 -- Ombudsman, is hereby deleted in its entirety and replaced with the following:

1852.215-84 OMBUDSMAN (OCT 2003)--ALTERNATE I (JUNE 2000). The installation Ombudsman is Dorothy Perkins, Goddard Space Flight Center, Mailstop 100, Greenbelt, MD 20771, Business Phone: 301 286-5066, Fax Number: 301 286-1714, E-mail address: Dorothy.C.Perkins@nasa.gov

C. Section J, Attachment J-1, SOW 1, is hereby deleted in its entirety and replaced with the attached revised SOW 1. This revision is necessary in order to incorporate language to support Energy-Efficient Products. This language is included in Paragraph 1.3.

(End of Modification)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE	PAGE 1 OF 2 PAGES
2. AMENDMENT/MODIFICATION NO. 123	3. EFFECTIVE DATE See Block 16C.	4. REQUISITION/PURCHASE REQ. NO. See Block 14	5. PROJECT NO. (If applicable) N/A		
6. ISSUED BY National Aeronautics and Space Administration Goddard Space Flight Center Wallops Flight Facility Attn: Kimberley Sweep/Code 210.W/757-824-2363 Wallops Island, VA 23337		7. ADMINISTERED BY (If other than Item 6)	CODE		
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP Code) The Cube Corporation 45665 Willow Pond Plaza Sterling, VA 20164				(4)	9A. AMENDMENT OF SOLICITATION NO.
					9B. DATED (SEE ITEM 11)
				X	10A. MODIFICATION OF CONTRACT/ORDER NO. NAS5-01080
					10B. DATED (SEE ITEM 13) July 26, 2001
CODE		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

BNC: GFE

PPC: BX

TOTAL ESTIMATED COST: \$151,011,066.00

TOTAL CONTRACT FUNDING: \$89,785,809.21

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(4)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER Specify type of modification and authority) This unilateral modification is issued pursuant to 52.232-22 Limitation of Funds (APR 1984)

E. IMPORTANT: Contractor ☒ is not, ☐ is required to sign this document and return ____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

1. The purpose of this modification is to change funding for the subject contract.

(Continued on Page 2)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Pamela J. Taylor	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED MAR 31, 2005
(Signature of person authorized to sign)		BY Original Signed (Signature of Contracting Officer)	

2. Under Clause B.9 CONTRACT FUNDING (NFS 1852.232-81) revise contract funding as follows:

BASELINE:

a. The total allotted for payment of cost is revised as follows:

FROM	BY	TO
\$51,844,259.78	\$244,910.00	\$52,089,169.78

b. The total amount allotted for fee is revised as follows:

FROM	BY	TO
\$2,971,871.44	\$12,890.00	\$2,984,761.44

IDIQ:

a. The total allotted for payment of cost is revised as follows:

FROM	BY	TO
\$32,247,802.57	\$577,469.85	\$32,825,272.42

b. The total amount allotted for fee is revised as follows:

FROM	BY	TO
\$1,856,212.42	\$30,393.15	\$1,886,605.57

The total amount allotted for payment of cost and fee is as follows:

FROM	BY	TO
\$88,920,146.21	\$865,663.00	\$89,785,809.21

The total amount of funds obligated per this modification is: \$870,360.00.

The total amount of funds deobligated per this modification is: \$4,697.00.

TOTAL CHANGE IN CONTRACT FUNDING: \$865,663.00.

The period of performance covered by the obligation of allotted funding is extended to June 20, 2005.

3. ACCOUNTING AND APPROPRIATION DATA

OBLIGATE:			
BASELINE:	PR NUMBER	AMOUNT	SOW
	4200104673	\$202,000.00	3
	4200104673	\$ 55,800.00	2
TOTAL BASELINE		\$257,800.00	
IDIQ:	PR NUMBER	AMOUNT	SOW/T0
	4200072497	\$360,752.00	4-81-2005
	4200104673	\$ 40,622.00	10-8-2005
	4200104673	\$ 60,000.00	5-16-2005
	4200106423	\$ 15,000.00	1-00-2004
	4200106423	\$ 5,000.00	4-38-2005
	4200106423	\$ 3,000.00	4-67-2005
	4200106670	\$ 7,000.00	4-67-2005
	4200106797	\$ 38,322.00	14-9-2005
	4200107109	\$ 56,200.00	4-79-2005
	4200107109	\$ 26,664.00	4-66-2005
TOTAL IDIQ		\$612,560.00	
TOTAL OBLIGATED		\$870,360.00	
DEOBLIGATE:			
IDIQ:	PR NUMBER	AMOUNT	SOW/T0
	4200086693	\$(4,697.00)	8-18-2004
TOTAL DEOBLIGATED - IDIQ		\$(4,697.00)	

4. No other changes to the subject contract are made by issuance of this modification.

(End of Modification)